

# **SQL Manager.net™**

EMS® Database Management Solutions



## **Data Import for Interbase/Firebird User's Manual**

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# **Data Import for Interbase/Firebird User's Manual**

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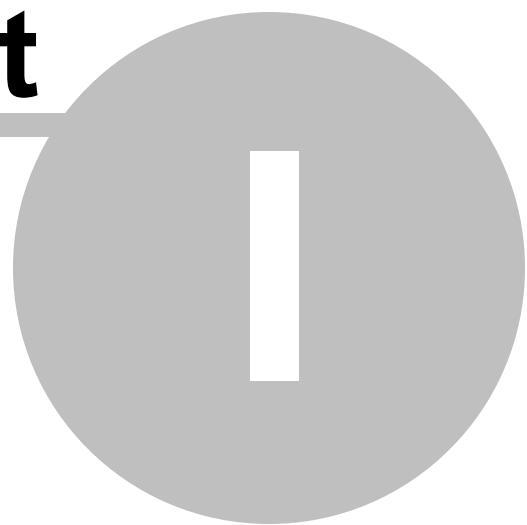
Document generated on: 05/06/2014

# Table of Contents

<b>Part I Welcome to EMS Data Import utility!</b>	<b>6</b>
What's new .....	7
System requirements .....	8
Installation .....	9
How to buy Data Import .....	10
How to register Data Import .....	12
EMS Data Import FAQ .....	13
Other EMS Products .....	16
<b>Part II Wizard application</b>	<b>23</b>
Working with wizard application .....	24
Getting started .....	24
Step 1 - Setting connection properties .....	25
Step 2 - Selecting files to import .....	27
Step 3 - Setting XML file type .....	30
Step 4 - Mapping fields .....	31
MS Excel.....	32
MS Excel 2007.....	33
MS Word 2007.....	36
MS Access.....	37
DBF.....	38
XML.....	40
XML Document.....	41
TXT.....	43
CSV.....	44
HTML.....	46
ODS.....	47
ODT.....	49
Step 5 - Setting base data formats .....	50
Format specifiers.....	52
Step 6 - Settings data formats for each field .....	55
Step 7 - Specifying import mode .....	59
Step 8 - Selecting key columns .....	61
Step 9 - Setting common options .....	62
Step 10 - Defining scripts .....	64
Step 11 - Start of data import process .....	65
Using data import configuration files .....	67
Setting program preferences .....	69
General .....	69
Languages .....	71
Data Font .....	72
Excel Options .....	73
Interface .....	74

<b>Part III Console application</b>	<b>77</b>
Working with console application .....	78
Configuration file format .....	79
<b>Part IV Appendix</b>	<b>83</b>
Supported file formats .....	83
SSH tunneling options .....	84
Add/Edit field .....	85
Add/Edit Range .....	87

**Part**



# 1 Welcome to EMS Data Import utility!

**EMS Data Import for Interbase/Firebird** is a powerful program to import your data quickly from MS Excel/Excel 2007, MS Word 2007, MS Access, DBF, TXT, CSV, Open Document, HTML files to Interbase/Firebird tables. It provides adjustable import parameters, including source data formats for all the fields and destination data formats for the selected fields, commit options, number of records to skip, etc. Data Import for Interbase/Firebird includes a wizard which allows you to set all the import options for different files visually, and a command-line utility to execute import in one-touch.

Visit our web-site: <http://www.sqlmanager.net/> for details.

## Key features:

- Import from most popular formats: MS Excel 97-2007, MS Access, XML, DBF, TXT, CSV, MS Word 2007, Open Document Format and HTML
- Importing data to one or several tables or views from different databases
- Automatically creates table structure
- Special batch insert commands allow to import data at the maximum possible speed
- A number of import modes - Insert All, Insert New, Insert or Update, and others
- Secure Shell (SSH) tunneling support
- Adjustable import parameters for each source file
- Saving all import parameters set on current wizard session
- Command-line utility to import data using the configuration file
- Powerful visual options module
- User-friendly localisable wizard interface

## Product information:

Homepage: <http://www.sqlmanager.net/en/products/ibfb/dataimport>  
Support Ticket <http://www.sqlmanager.net/support>  
System:  
Register online at: <http://www.sqlmanager.net/en/products/ibfb/dataimport/buy>

## 1.1 What's new

**Version****Data Import for Interbase/Firebird 3.7****Release date**

June 09, 2014

**What's new in EMS Data Import?**

- Import rate is increased due to use of multithreading.
- [XML](#)<sup>[30]</sup>. Added the possibility of manual and automated identification of the type of the imported XML-file.
- Now [log](#)<sup>[65]</sup> contains information about the string number where the error occurred.
- When importing from several files their [logs](#)<sup>[65]</sup> are located at different tabs, while the main log contains general information about these processes.
- [DBF](#)<sup>[38]</sup>. Wrong identification of Integer type fields. Fixed now.
- "yyyy-mm-ddThh:nn:ss" format was recognized incorrectly. Fixed now.
- [HTML](#)<sup>[46]</sup>. When importing from HTML file with the links the application froze. Fixed now.
- Other improvements and bugfixes.

---

**See also:**

Version history

## 1.2 System requirements

### System requirements for Data Import for Interbase/Firebird

- 300-megahertz (MHz) processor; 600-megahertz (MHz) or faster processor recommended
- Microsoft® Windows NT4 with SP4 or later, Microsoft® Windows 2000, Microsoft® Windows 2000 Server, Microsoft® Windows XP, Microsoft® Windows 2003 Server, Windows® 2008 Server, Microsoft® Windows Vista, Microsoft® Windows 7, Microsoft® Windows 8, Microsoft® Windows 8.1
- 64MB RAM or more; 128MB or more recommended
- 20MB of available HD space for program installation
- Super VGA (800x600) or higher-resolution video adapter and monitor; Super VGA (1024x768) or higher-resolution video adapter and monitor recommended
- Microsoft® Mouse or compatible pointing device
- Interbase/Firebird client
- Possibility to connect to any local or remote Interbase/Firebird server
- Supported InterBase and Firebird server versions: InterBase - up to 2007; Firebird - up to 2.1

## 1.3 Installation

If you are **installing Data Import for Interbase/Firebird for the first time** on your PC:

- download the Data Import for Interbase/Firebird distribution package from the [download page](#) available at our site;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- run *IbImportSetup.exe* from the local directory and follow the instructions of the installation wizard;
- after the installation process is completed, find the Data Import shortcut in the corresponding group of Windows Start menu.

### [Installation FAQs](#)

If you want to **upgrade an installed copy of Data Import for Interbase/Firebird** to the latest version:

- download the **Data Import for Interbase/Firebird** distribution package from the [download page](#) available at our site;
- unzip the downloaded file to any local directory, e.g. *C:\unzipped*;
- close Data Import application if it is running;
- run *IbImportSetup.exe* from the local directory and follow the instructions of the installation wizard.

---

### See also:

[System requirements](#)

187

## 1.4 How to buy Data Import

To make it easier for you to purchase our products, we have contracted with share-it! registration service. The share-it! order process is protected via a secure connection and makes online ordering by credit/debit card quick and safe. The following information about share-it! is provided for your convenience.

**Share-it!** is a global e-commerce provider for software and shareware sales via the Internet. Share-it! accepts payments in US Dollars, Euros, Pounds Sterling, Japanese Yen, Australian Dollars, Canadian Dollars or Swiss Franks by Credit Card (Visa, MasterCard/ EuroCard, American Express, Diners Club), Bank/Wire Transfer, Check or Cash.

If you have ordered EMS software online and would like to review your order information, or if you have questions about ordering, payments, or shipping procedures, please visit our [Customer Care Center](#), provided by Share-it!

Please note that all of our products are delivered via ESD (Electronic Software Delivery) only. After purchase you will be able to immediately download the registration keys or passwords and download links for archives of full versions. Also you will receive a copy of registration keys or passwords by e-mail. Please make sure to enter a valid e-mail address in your order. If you have not received the keys within 2 hours, please, contact us at [sales@sqlmanager.net](mailto:sales@sqlmanager.net)

To obtain **MORE INFORMATION** on this product, visit us at <http://sqlmanager.net/en/products/ibfb/dataimport>

Product distribution	
<b>EMS Data Import for Interbase/Firebird</b> (Business license) + 1-Year Maintenance*	<a href="#">Buy Now!</a>
<b>EMS Data Import for Interbase/Firebird</b> (Business license) + 2-Year Maintenance*	
<b>EMS Data Import for Interbase/Firebird</b> (Business license) + 3-Year Maintenance*	
<b>EMS Data Import for Interbase/Firebird</b> (Non-commercial license) + 1-Year Maintenance*	
<b>EMS Data Import for Interbase/Firebird</b> (Non-commercial license) + 2-Year Maintenance*	
<b>EMS Data Import for Interbase/Firebird</b> (Non-commercial license) + 3-Year Maintenance*	<a href="#">Download Now!</a>
<b>EMS Data Import for Interbase/Firebird</b> (Trial version)	

\***EMS Maintenance Program** provides the following benefits:

- Free software bug fixes, enhancements, updates and upgrades during the maintenance period
- Free unlimited communications with technical staff for the purpose of reporting Software failures
- Free reasonable number of communications for the purpose of consultation on operational aspects of the software

- Access to personalized sqlmanager.net account
- online, speed-through maintenance renewal
- Advanced and exclusive notification of software promotions
- "Maintenance Owner ONLY" product promotions

After your maintenance expires, you will not be able to update your software or get technical support. To protect your investments and have your software up-to-date, you need to renew your maintenance.

You can easily reinitiate/renew your maintenance with our online, speed-through Maintenance Reinstatement/Renewal Interface. After reinitiating/renewal you will receive a confirmation e-mail with all the necessary information.

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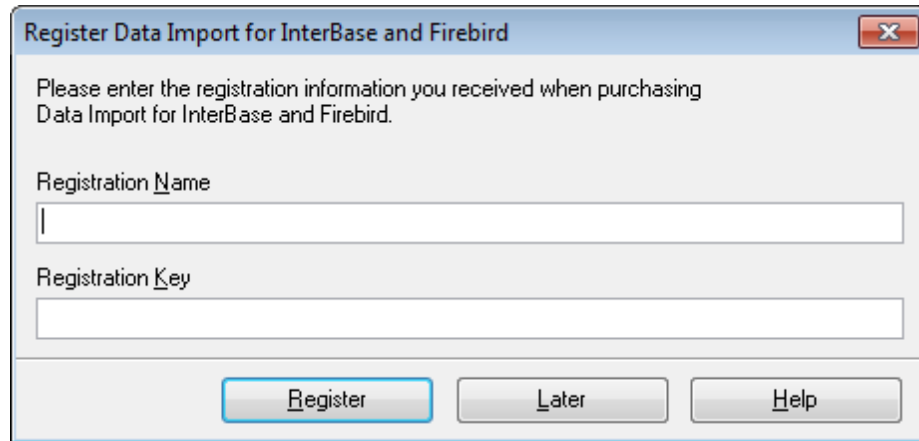
**See also:**

[How to register Data Import](#)<sup>[12]</sup>

## 1.5 How to register Data Import

To **register** your newly purchased copy of EMS Data Import for Interbase/Firebird, perform the following:

- receive the notification letter from **Share-it!** with the registration info;
- enter the **Registration Name** and the **Registration Key** from this letter;
- make sure that the registration process has been completed successfully – check the registration information at the [startup page](#)<sup>[24]</sup>.



Register Data Import for InterBase and Firebird

Please enter the registration information you received when purchasing Data Import for InterBase and Firebird.

Registration Name

Registration Key

Register Later Help

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### See also:

[How to buy Data Import](#)<sup>[10]</sup>

## 1.6 EMS Data Import FAQ

Please read this page attentively if you have questions about Data Import for Interbase/Firebird.

### Table of contents

- [What is EMS Data Import for InterBase/Firebird?](#)<sup>[13]</sup>
- [What do I need to start working with EMS Data Import for InterBase/Firebird?](#)<sup>[13]</sup>
- [What is the difference between the Import feature of SQL Manager for InterBase/Firebird and the Data Import for InterBase/Firebird utility?](#)<sup>[13]</sup>
- [Are there any limitations implied in the trial version as compared with the full one?](#)<sup>[14]</sup>
- [What is the easiest way to configure the template files for the Data Import console application?](#)<sup>[14]</sup>
- [I work behind a firewall \(router\). Can EMS Data Import connect to a remote Interbase/Firebird server?](#)<sup>[14]</sup>
- [Why cannot I connect to the local InterBase/Firebird Server?](#)<sup>[13]</sup>
- [Why cannot I connect to a remote InterBase/Firebird server?](#)<sup>[13]</sup>

### Question/answer list

*Q: What is EMS Data Import for Interbase/Firebird?*

A: EMS Data Import for Interbase/Firebird is a powerful tool to import your data quickly from MS Access, MS Excel, DBF, TXT, CSV, XML, MS Excel 2007, MS Word 2007, HTML, ODF files to Interbase/Firebird tables. It provides adjustable import parameters, including source data formats for all the fields and destination data formats for the selected fields, commit options, number of records to skip, etc. Data Import includes a wizard which allows you to set all the import options for different files visually, and a command-line utility to execute import in one-touch.

*Q: What do I need to start working with EMS Data Import for Interbase/Firebird?*

A: First of all, you must have a possibility to connect to some local or remote Interbase/Firebird server to work with Data Import. You can download Interbase/Firebird database server from <http://www.codegear.com/interbase> (the latest commercial version of InterBase server) or Firebird client and server from <http://www.firebirdsql.org>. Besides, you need your workstation to satisfy the [system requirements](#)<sup>[8]</sup> for Data Import for Interbase/Firebird.

*Q: What is the difference between the Import feature of SQL Manager for Interbase/Firebird and the Data Import for Interbase/Firebird utility?*

A: First of all, Data Import for Interbase/Firebird works faster as it is a considerably lighter application. Besides, it provides additional features for query building, namely:

- import data to several tables simultaneously;
- import data to tables selected from different databases;
- the command-line version of the utility to import data using the configuration (template) file with all import settings;
- automatically creates table structure.

*Q: Are there any limitations implied in the trial version as compared with the full one?*

A: Actually the trial version of the utility only allows you to import 20% of records into each table. With this limitation, you can test all the features implemented in Data Import for Interbase/Firebird within the 30-day trial period.

**Note:** There is a 100 records (instead of 20%) limitation when importing from CSV, TXT or MS Access files.

*Q: What is the easiest way to configure the template files for the Data Import console application?*

A: You can configure the template files for each table visually using the Data Import Wizard application. Set the required options and select the Tools | Save Template menu item. All the options will be saved to the template file which can be used by the console application.

*Q: I work behind a firewall (router). Can EMS Data Import connect to a remote Interbase/Firebird server?*

A: If due to the security policy accepted in your corporate network or by your host provider you cannot connect to your PostgreSQL server directly through TCP/IP (for example a firewall prevents this), you can use SSH or HTTP tunneling feature of SQL Manager to fulfill your task.

*Q: Why cannot I connect to the local InterBase/Firebird server?*

A: There are several reasons why you cannot connect to the local database. If during connection you get the error "Connection failed. Server is stopped or improper client library is used to establish connection to the server. SQLCode: -904 IB Error Number: 335544375", then you should check if the port or service used for server connection is set correctly and if a local server is running. To check if the service is launched, open Control Panel->Administrative Tools->Services and find service InterBase Guardian (if you use InterBase) or Firebird Guardian (if you use Firebird). In case you find it, run it with the Start button or use Start item in the context menu. If you cannot launch this service, then probably your server is installed incorrectly and you need to reinstall it. Another possible reason for this error is that the client library version does not coincide with the server version. If you get the error like "Your user name and password are not defined. Ask your database administrator to set up a Firebird login. SQL Code: -902 IB Error Number: 335544472" then the reason for this is that the registration data you enter are absent in your server security database. You should register the user with the proper login and password on your server.

*Q: Why cannot I connect to a remote InterBase/Firebird server?*

A: There could be several possible reasons that prevent you from successful connection to remote database. If the error message says "Connection failed. Server is stopped or improper client library is used to establish connection to the server. SQLCode: -904 IB Error Number: 335544375" then probably you should check the correctness of port and host name you've entered and also if the remote server is run. It often happens that the port through which the connection is set with InterBase/Firebird server (normally, it's 3050) is closed for the security reasons by local firewall, corporate firewall or remote server firewall. Please check this with your system administrator or ISP. In order to avoid this limitation you can use SSH tunnel (50, 55).

If the error message says "Your user name and password are not defined. Ask your database administrator to set up a Firebird login. SQL Code: -902 IB Error Number: 335544472", then the reason is that the user doesn't have permission to access the database. You should register the user with the proper login and password on your server.

[Scroll to top](#) 

If you still have any questions, contact us at [Support Center](#).

## 1.7 Other EMS Products

### Quick navigation



### MySQL



#### [SQL Management Studio for MySQL](#)

EMS SQL Management Studio for MySQL is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!



#### [SQL Manager for MySQL](#)

Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.



#### [Data Export for MySQL](#)

Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.



#### [Data Import for MySQL](#)

Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.



#### [Data Pump for MySQL](#)

Migrate from most popular databases (MySQL, PostgreSQL, Oracle, DB2, InterBase/Firebird, etc.) to MySQL.



#### [Data Generator for MySQL](#)

Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.



#### [DB Comparer for MySQL](#)

Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.



#### [DB Extract for MySQL](#)

Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.



#### [SQL Query for MySQL](#)

Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.



#### [Data Comparer for MySQL](#)

Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

[Scroll to top](#) [16]

## Microsoft SQL



### [SQL Management Studio for SQL Server](#)

EMS SQL Management Studio for SQL Server is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!



### [EMS SQL Backup for SQL Server](#)

Perform backup and restore, log shipping and many other regular maintenance tasks on the whole set of SQL Servers in your company.



### [SQL Administrator for SQL Server](#)

Perform administrative tasks in the fastest, easiest and most efficient way. Manage maintenance tasks, monitor their performance schedule, frequency and the last execution result.



### [SQL Manager for SQL Server](#)

Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.



### [Data Export for SQL Server](#)

Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more



### [Data Import for SQL Server](#)

Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.



### [Data Pump for SQL Server](#)

Migrate from most popular databases (MySQL, PostgreSQL, Oracle, DB2, InterBase/Firebird, etc.) to Microsoft® SQL Server™.



### [Data Generator for SQL Server](#)

Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.



### [DB Comparer for SQL Server](#)

Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.



### [DB Extract for SQL Server](#)

Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.



### [SQL Query for SQL Server](#)

Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.



### [Data Comparer for SQL Server](#)

Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

[Scroll to top](#) <sup>16</sup>

## PostgreSQL



### [SQL Management Studio for PostgreSQL](#)

EMS SQL Management Studio for PostgreSQL is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!



### [SQL Manager for PostgreSQL](#)

Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.



### [Data Export for PostgreSQL](#)

Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more



### [Data Import for PostgreSQL](#)

Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.



### [Data Pump for PostgreSQL](#)

Migrate from most popular databases (MySQL, SQL Server, Oracle, DB2, InterBase/Firebird, etc.) to PostgreSQL.



### [Data Generator for PostgreSQL](#)

Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.



### [DB Comparer for PostgreSQL](#)

Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.



### [DB Extract for PostgreSQL](#)

Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.



### [SQL Query for PostgreSQL](#)

Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.



### [Data Comparer for PostgreSQL](#)

Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

[Scroll to top](#)

## InterBase / Firebird



### [SQL Management Studio for InterBase/Firebird](#)

EMS SQL Management Studio for InterBase and Firebird is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!



### [SQL Manager for InterBase/Firebird](#)

Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

[Data Export for InterBase/Firebird](#)

Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more

[Data Import for InterBase/Firebird](#)

Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

[Data Pump for InterBase/Firebird](#)

Migrate from most popular databases (MySQL, SQL Server, Oracle, DB2, PostgreSQL, etc.) to InterBase/Firebird.

[Data Generator for InterBase/Firebird](#)

Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

[DB Comparer for InterBase/Firebird](#)

Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.

[DB Extract for InterBase/Firebird](#)

Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.

[SQL Query for InterBase/Firebird](#)

Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

[Data Comparer for InterBase/Firebird](#)

Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

[Scroll to top](#)

## Oracle

[SQL Management Studio for Oracle](#)

EMS SQL Management Studio for Oracle is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!

[SQL Manager for Oracle](#)

Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.

[Data Export for Oracle](#)

Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.

[Data Import for Oracle](#)

Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.

[Data Pump for Oracle](#)

Migrate from most popular databases (MySQL, PostgreSQL, MySQL, DB2, InterBase/Firebird,

etc.) to Oracle



#### [Data Generator for Oracle](#)

Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.



#### [DB Comparer for Oracle](#)

Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.



#### [DB Extract for Oracle](#)

Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.



#### [SQL Query for Oracle](#)

Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.



#### [Data Comparer for Oracle](#)

Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

[Scroll to top](#) <sup>167</sup>

## DB2

### SQL Management Studio for DB2

EMS SQL Management Studio for DB2 is a complete solution for database administration and development. SQL Studio unites the must-have tools in one powerful and easy-to-use environment that will make you more productive than ever before!



#### [SQL Manager for DB2](#)

Simplify and automate your database development process, design, explore and maintain existing databases, build compound SQL query statements, manage database user rights and manipulate data in different ways.



#### [Data Export for DB2](#)

Export your data to any of 20 most popular data formats, including MS Access, MS Excel, MS Word, PDF, HTML and more.



#### [Data Import for DB2](#)

Import your data from MS Access, MS Excel and other popular formats to database tables via user-friendly wizard interface.



#### [Data Pump for DB2](#)

Migrate from most popular databases (MySQL, PostgreSQL, Oracle, MySQL, InterBase/Firebird, etc.) to DB2



#### [Data Generator for DB2](#)

Generate test data for database testing purposes in a simple and direct way. Wide range of data generation parameters.

### DB Comparer for DB2

Compare and synchronize the structure of your databases. Move changes on your development database to production with ease.



### [DB Extract for DB2](#)

Create database backups in the form of SQL scripts, save your database structure and table data as a whole or partially.



### [SQL Query for DB2](#)

Analyze and retrieve your data, build your queries visually, work with query plans, build charts based on retrieved data quickly and more.

### [Data Comparer for DB2](#)

Compare and synchronize the contents of your databases. Automate your data migrations from development to production database.

[Scroll to top](#)

## Tools & components



### [Advanced Data Export](#)

Advanced Data Export Component Suite (for Borland Delphi and .NET) will allow you to save your data in the most popular office programs formats.



### [Advanced Data Export .NET](#)

Advanced Data Export .NET is a component suite for Microsoft Visual Studio .NET 2003, 2005, 2008 and 2010 that will allow you to save your data in the most popular data formats for the future viewing, modification, printing or web publication. You can export data into MS Access, MS Excel, MS Word (RTF), PDF, TXT, DBF, CSV and more! There will be no need to waste your time on tiresome data conversion - Advanced Data Export will do the task quickly and will give the result in the desired format.



### [Advanced Data Import](#)

Advanced Data Import™ Component Suite for Delphi® and C++ Builder® will allow you to import your data to the database from files in the most popular data formats.



### [Advanced PDF Generator](#)

Advanced PDF Generator for Delphi gives you an opportunity to create PDF documents with your applications written on Delphi® or C++ Builder®.



### [Advanced Query Builder](#)

Advanced Query Builder is a powerful component suite for Borland® Delphi® and C++ Builder® intended for visual building SQL statements for the SELECT, INSERT, UPDATE and DELETE clauses.



### [Advanced Excel Report](#)

Advanced Excel Report for Delphi is a powerful band-oriented generator of template-based reports in MS Excel.



### [Advanced Localizer](#)

Advanced Localizer™ is an indispensable component suite for Delphi® for adding multilingual support to your applications.

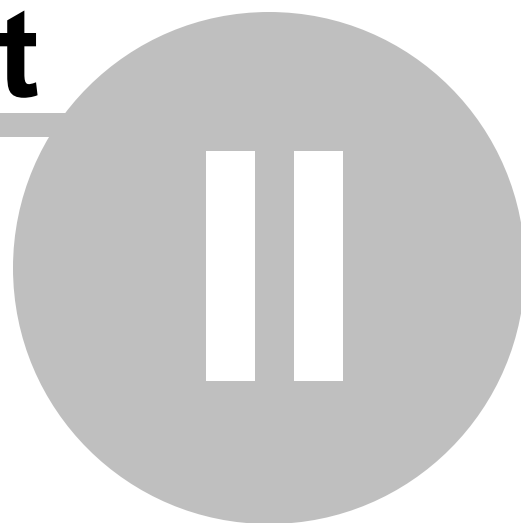


### [Source Rescuer](#)

EMS Source Rescuer™ is an easy-to-use wizard application for Borland Delphi® and C++ Builder® which can help you to restore your lost source code.

[Scroll to top](#)

**Part**



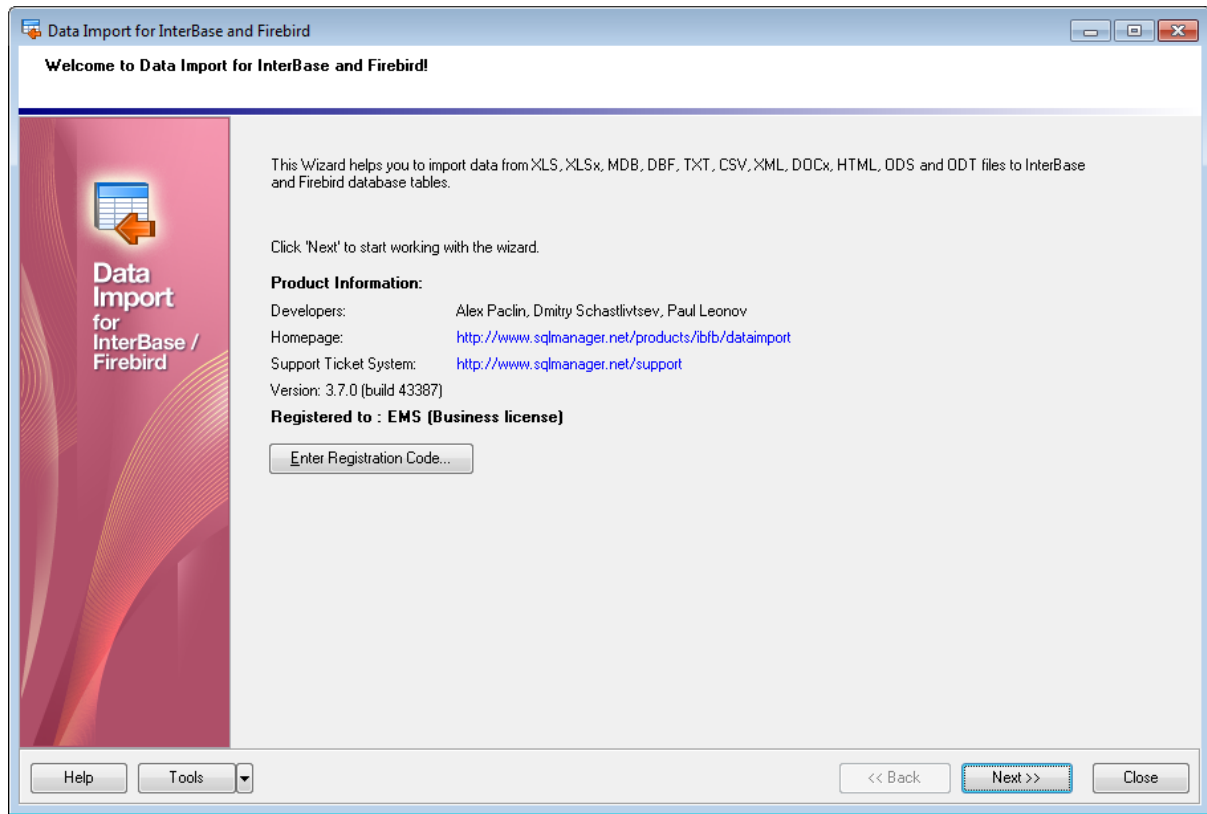
## 2 Wizard application

Data Import for Interbase/Firebird wizard application provides easy-to-use wizard interface to set all data import parameters visually.

[Working with wizard application](#)<sup>[24]</sup>

[Using configuration files](#)<sup>[67]</sup>

[Setting program preferences](#)<sup>[69]</sup>



**See also:**

[Console Application](#)<sup>[77]</sup>

## 2.1 Working with wizard application

Follow the steps of the wizard to import data to Interbase/Firebird tables for your needs.

[Getting started](#)<sup>[24]</sup>

[Step 1 - Setting connection properties](#)<sup>[25]</sup>

[Step 2 - Selecting files to import](#)<sup>[27]</sup>

[Step 3 - Setting XML file type](#)<sup>[30]</sup>

[Step 4 - Mapping fields](#)<sup>[31]</sup>

[Step 5 - Setting base data formats](#)<sup>[50]</sup>

[Step 6 - Setting data formats for each field](#)<sup>[55]</sup>

[Step 7 - Specifying import mode](#)<sup>[59]</sup>

[Step 8 - Selecting key columns to exclude from import process](#)<sup>[61]</sup>

[Step 9 - Setting commit options](#)<sup>[62]</sup>

[Step 10 - Defining scripts to execute before and after import](#)<sup>[64]</sup>

[Step 11 - Start of data import process](#)<sup>[65]</sup>

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### See also:

[Using data import configuration files](#)

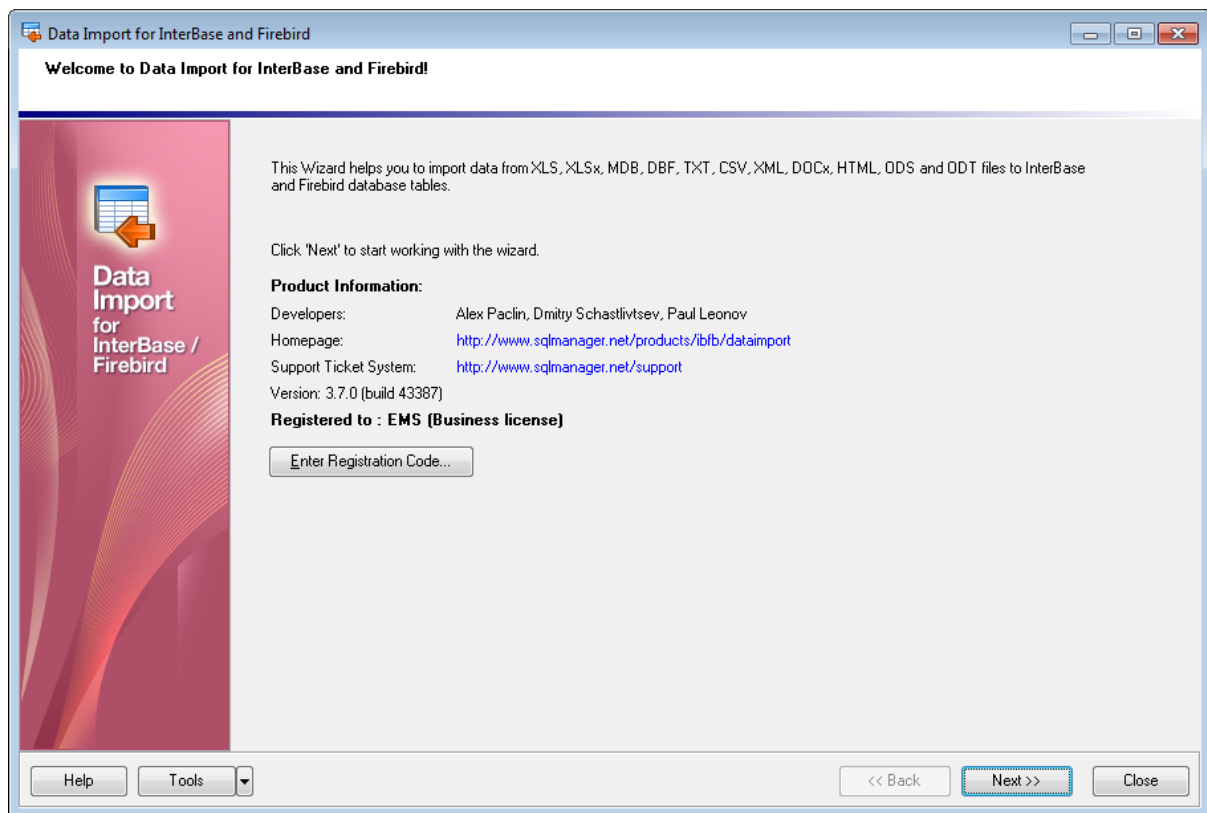
<sup>[67]</sup>

[Setting program preferences](#)<sup>[69]</sup>

### 2.1.1 Getting started

This is how Data Import for Interbase/Firebird **wizard application** looks when you first start it.

This page allows you to view registration information. If you have not registered Data Import for Interbase/Firebird yet, you can do it by pressing the **Register** button and [entering your registration information](#)<sup>[12]</sup>.



Press the **Next** button to proceed to [Setting connection properties](#)<sup>[25]</sup>.

---

**See also:**

[How to buy Data Import](#)<sup>[10]</sup>

### 2.1.2 Step 1 - Setting connection properties

At this step you should specify necessary settings to establish **connection** to the target Interbase/Firebird database.

#### Connection settings

For connection you should enter Interbase/Firebird host name in the **Host** field and specify the preferable **Network protocol** (*TCP/IP, NetBEUI, Novel SPX*). The **Host** drop-down list contains the list of already registered hosts. For both types you should enter Interbase/Firebird port to connect through in the **Port** field.

Afterwards you should specify *authorization* settings: **Login** and **Password**. The default superuser name is 'SYSDBA' and the default password is 'masterkey'.

You also need to specify the path to the **Client library** and the path to the **Database** file (\*.gdb for InterBase or \*.fdb for Firebird) in the corresponding fields. For successful

connection to the server it is crucial to use the appropriate client library - the one that is compatible with the server you are using: *gds32.dll* for InterBase and *fbclient.dll* for Firebird. Please note that the client library file must be located on your local machine (e.g. in the directory where the utility is installed). Bear in mind that the path to the database file should be set relatively to the Interbase/Firebird server file system.

Please note that you need to have sufficient privileges to be able to write to the destination database on Interbase/Firebird server.

### Tunneling settings

To setup the connection via **SSH tunnel**, input the following values in the corresponding fields:

- **SSH host name** is the name of the host (IP address) where SSH server is running
- **SSH port** indicates the port where SSH server is activated (default is "22")
- **SSH user name** stands for the user on the machine where SSH server is running (  
**Note:** it is a Linux/Windows user, not a user of Interbase/Firebird server)
- **SSH password** is the Linux/Windows user password

#### ☒ Use Private Key for authentication

If the SSH encryption is enabled on the SSH server, a user can generate a pair of cryptographic keys (the **Private key** and the **Public key**). The **Public key** is placed on the SSH server, and the **Private key** is the part you keep secret inside a secure box that can only be opened with the correct passphrase (or an empty string as the passphrase). When you wish to access the remote system, you open the secure box with your passphrase (if any), and use the private key to authenticate yourself with the Public key

on the remote Linux computer.

### SSH Key file

Specify the location (the secure box) of the **Private key** file on your local machine.

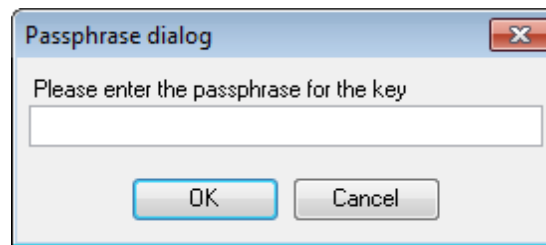
Supported Private Key file formats are:

*OpenSSH*

*Putty*

*SSH.com*

Note that you need to trust your local machine not to scrape your passphrase or a copy of your Private key file while it is out of its secure box.




If you get any difficulties connecting to the database, it can be useful to look through [FAQs](#)<sup>[13]</sup>.

When you are done, press the **Next** button to proceed to the [next step](#)<sup>[27]</sup>.

## 2.1.3 Step 2 - Selecting files to import

At this step you should **select source file(s) to be imported**.

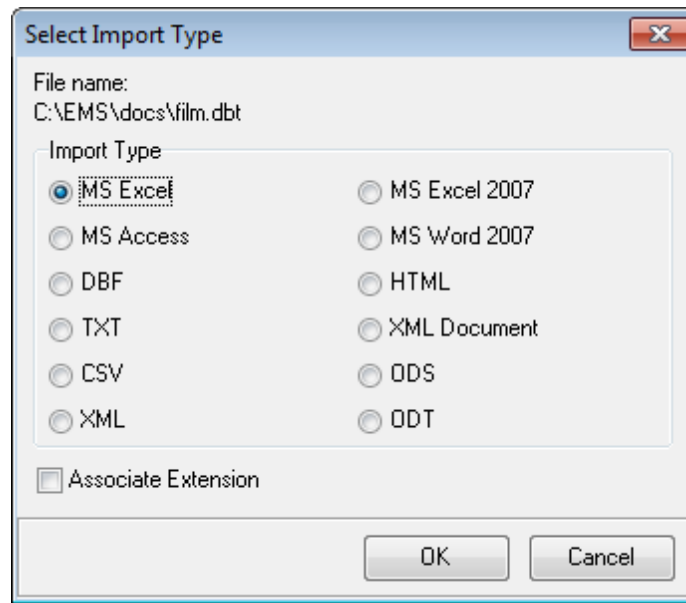
Click the  **Add File** button to select the source file name using the **Open file...** dialog. Repeat this operation to add more source files (if necessary).

You can choose among the following types of the source data file:


- *MS Excel*
- *MS Excel 2007*
- *MS Word 2007*
- *MS Access*
- *DBF*
- *TXT*
- *CSV*
- *HTML*
- *XML Data Packet*
- *XML MS Access*
- *XML Doc*
- *ODS*
- *ODT*



The open file dialog allows you to set a filter on the source file format.

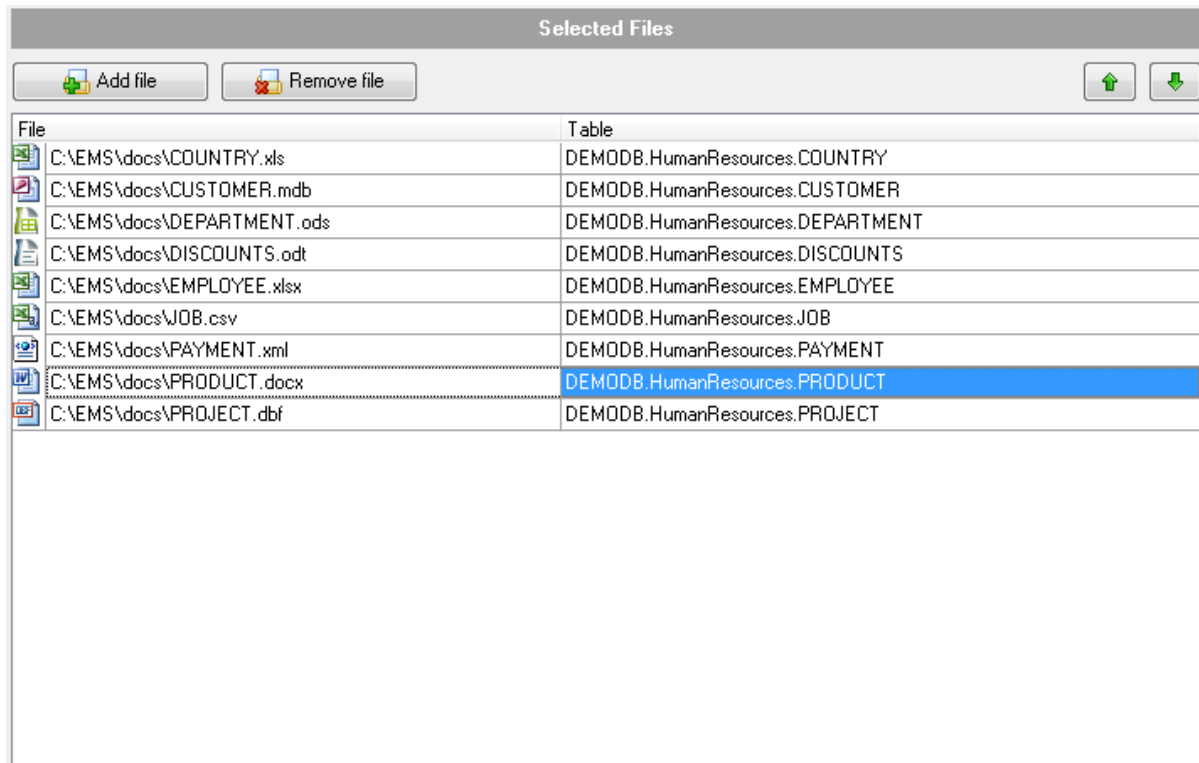
If you have selected the file of a format that is not supported the **Select Import Type** dialog appears.



Here you can select which import type for supported file formats should be applied to import the selected file.

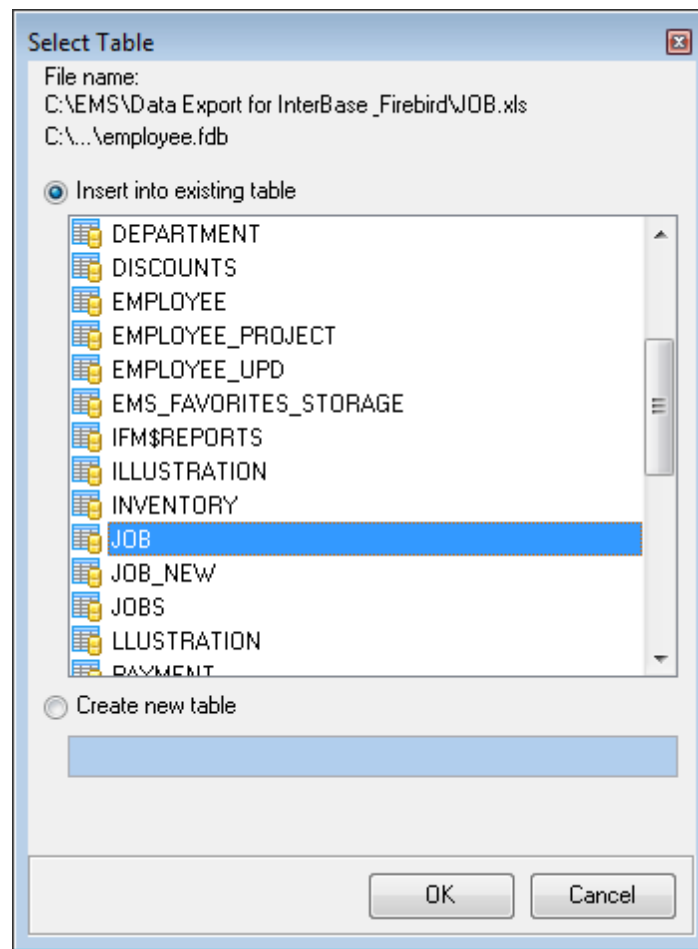
To delete a file from the list, select it and click the  **Remove File** button.

You can also change the order of the source files in the list using the **Up**  and the **Down**  buttons.



**Note:** For the spreadsheet files: if you need to import data from different sheets into different tables you are to include that multi-sheet spreadsheet file into the list several times (equal to the number of sheets to be imported to different tables).

When a file is selected the **Select Table** dialog appears:



**File name** field displays the selected file name and its location.

**Database** field allows you to specify the target database.

#### ☒ **Insert into existing table**

Select this option to import data to the existing table. **Tables** area contains the list of tables in the selected database. You can refresh the list by clicking the **Refresh** button.

#### ☐ **Create new table**

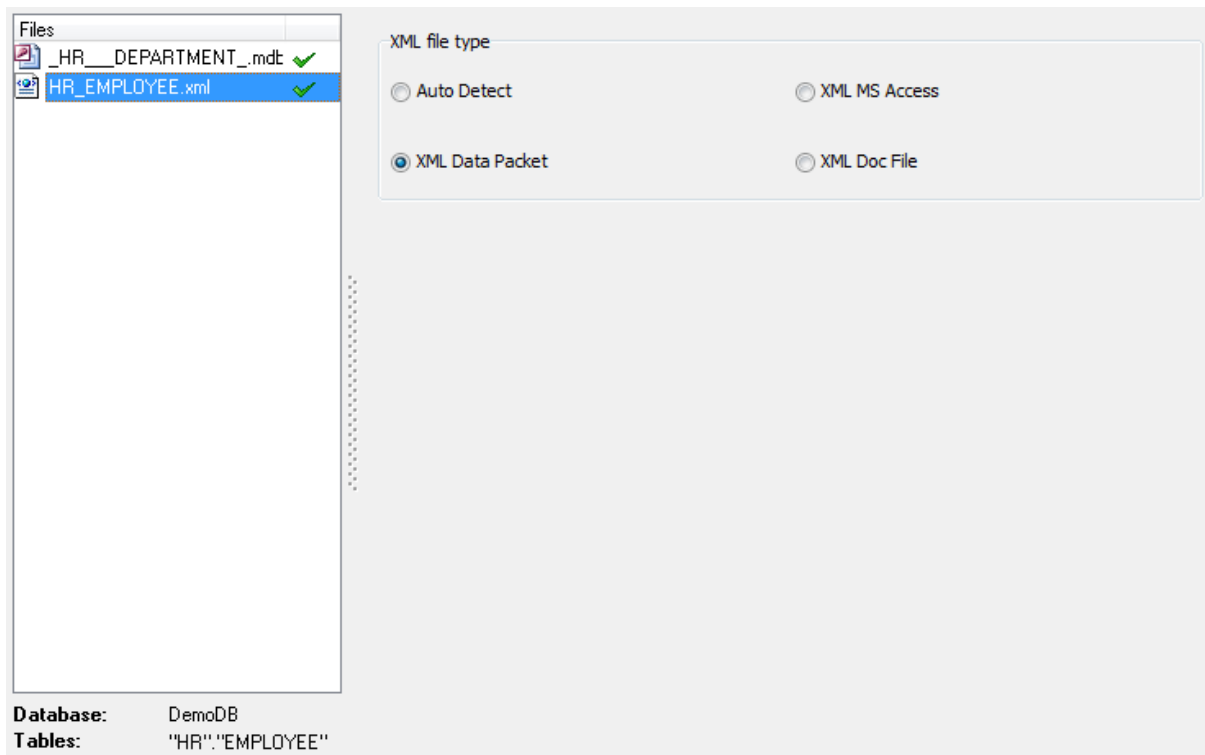
Use this option to create import destination table.

To change the target Interbase/Firebird table that has been already assigned to a source data file, select the table in the list and press the ellipsis (...) button to call the **Select Table** dialog again.

When you are done, press the **Next** button to proceed to the [next step](#)<sup>31</sup>.

### 2.1.4 Step 3 - Setting XML file type

This step appears if you have selected \*.xml file for importing data from.



### XML file type

Select the type of \*.xml file from which you are importing data:

- ☒ *Auto Detect* - file type will be detected automatically whether it is XML MS Access or XML data packet file;
- ☒ *XML MS Access* - select this option if your \*.xml file has the same structure as files exported from MS Access;
- ☒ *XML Data Packet* - select this option if your \*.xml file has data representation format used by Embarcadero;
- ☒ *XML Doc File* - select this option to map fields of a [Generic XML document](#)<sup>[41]</sup> manually.

## 2.1.5 Step 4 - Mapping fields

This step of the wizard allows you **to set correspondence** between columns of the source file and fields of the target Interbase/Firebird table, according to the source data format.

- [MS Excel mapping](#)<sup>[32]</sup>
- [MS Excel 2007 mapping](#)<sup>[33]</sup>
- [MS Word 2007 mapping](#)<sup>[36]</sup>
- [MS Access mapping](#)<sup>[37]</sup>
- [DBF mapping](#)<sup>[38]</sup>
- [XML mapping](#)<sup>[40]</sup>
- [XML Document mapping](#)<sup>[41]</sup>
- [TXT mapping](#)<sup>[43]</sup>
- [CSV mapping](#)<sup>[44]</sup>
- [HTML Document](#)<sup>[46]</sup>
- [ODS mapping](#)<sup>[47]</sup>

- [ODT mapping](#)<sup>[49]</sup>

To get more information about the file formats, see the [Supported file formats](#)<sup>[83]</sup> page.

When you are done, press the **Next** button to proceed to the [next step](#)<sup>[50]</sup>.


### 2.1.5.1 MS Excel


Select the needed source file from the list. Then specify ranges in the grid for the target and source fields:

- select a field of the target Interbase/Firebird table in the **Fields** list;
- proceed to the **Sheet** grid: click a column caption to select the whole column or click the row number to select the whole row;
- the selected column/row of the source file gets green highlight, and a new range indicating the source and target fields correspondence appears in the **Ranges** list;
- repeat the operation for all the fields you need to be included in the import process.

If the source file and the destination Interbase/Firebird table have the same order of

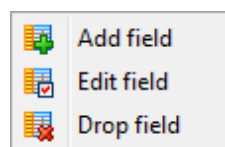
columns, you can use the  **Auto Fill Columns** mode (default) to set correspondence between them automatically. If source file and destination Interbase/

Firebird table have different order of columns but identical names you can use the  **Auto Fill by Captions** mode to set the correspondence based on name's identity. You

can also use the  **Auto fill Rows** to set the correspondence between destination table fields and source file rows.

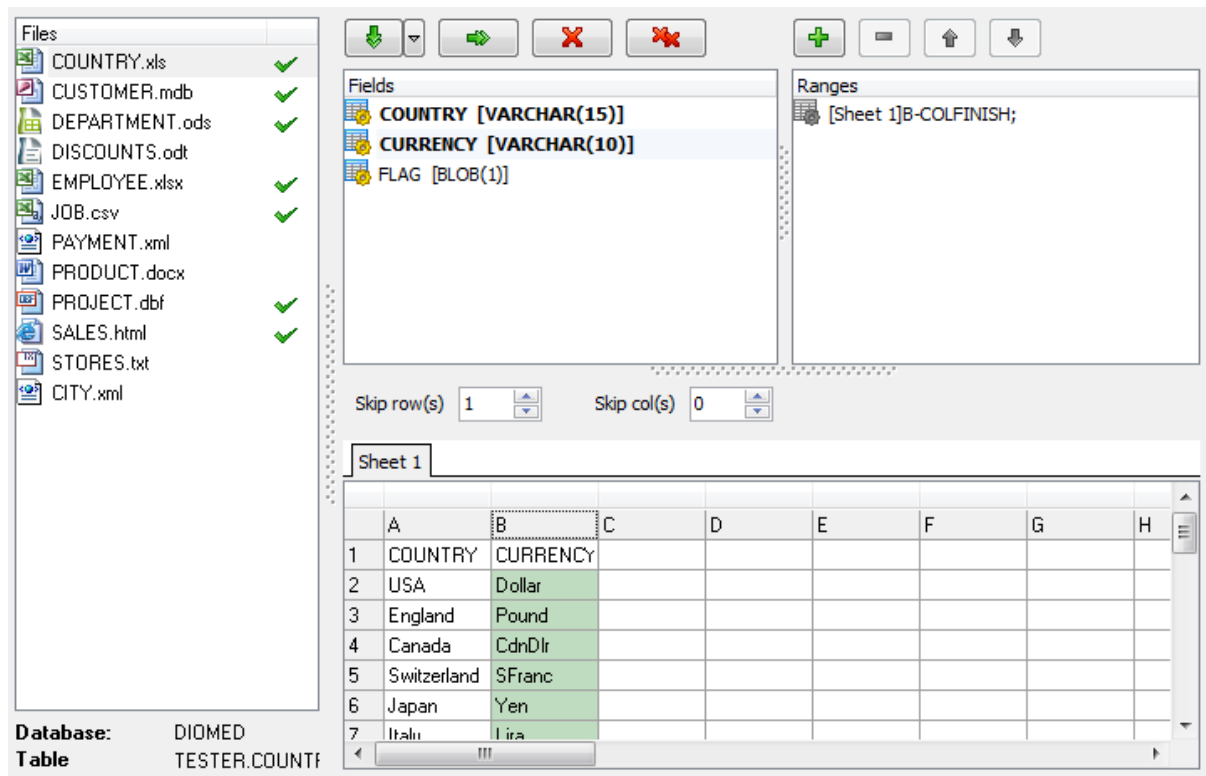
If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.

You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.





**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.


If necessary, you can choose to **skip** a defined number of the source file columns and/or rows using the **Col(s)** and **Row(s)** spin-edits.



If your spreadsheet file contains several sheets, you are able to set different mapping for each sheet.

To clear ranges for a field, select the field in the **Fields** list and press the  **Clear Field Ranges** button.

To clear all ranges specified for the target table fields, press the  **Clear All ranges** button.

To [set a range of data](#)<sup>[87]</sup> to be imported from the file, use the  **Add range** button.

To remove a range, use the  **Delete range** button.

Using the  **Move Up** and the  **Move Down** buttons you can change the order of ranges applied to data.

Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.


### 2.1.5.2 MS Excel 2007


Select the needed source file from the list. Then specify ranges in the grid for the target and source fields:

- select a field of the target Interbase/Firebird table in the **Fields** list;
- proceed to the **Sheet** grid: click a column to assign the column to the selected target

table field;

- the selected column of the source file gets gray highlight;
- repeat the operation for all the fields you need to be included in the import process.

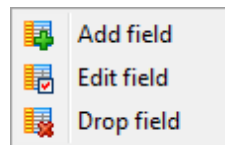
If the source file and the destination Interbase/Firebird table have the same order of columns, you can use the  **Auto Fill Columns** mode (default) to set correspondence between them automatically. If source file and destination Interbase/

Firebird table have different order of columns but identical names you can use the  **Auto Fill by Captions** mode to set the correspondence based on name's identity.



**Note:** The number of the column for which correspondence was set is displayed at the **Col.** control. You can use it for setting the fields correspondence as well.

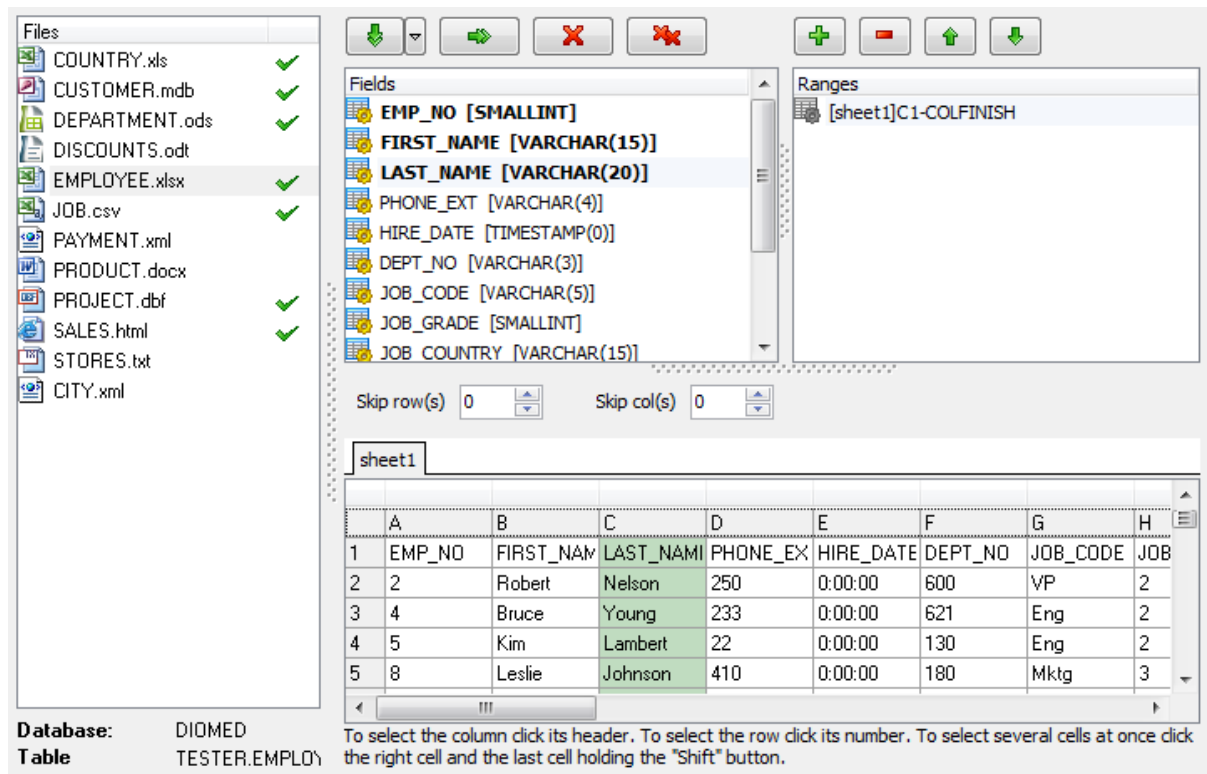
If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.


You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.




If necessary, you can choose to **skip** a defined number of the source file rows or columns using the **Skip lines** or **Skip cols** spin-edit.


**Note:** If table was properly created or already exist, it will be marked with a tick . If an error occur during table creation, this table will be marked with a cross .




To remove a correspondence, select the field in the **Fields** list and press the  **Clear Field Ranges** button.

To remove all correspondences, press the  **Clear All Ranges** button.

If your spreadsheet file contains several sheets, you are able to set different mapping for each sheet.

To clear ranges for a field, select the field in the **Fields** list and press the **Clear Field Ranges**  button.

To clear all ranges specified for the target table fields, press the **Clear All ranges**  button.

To [set a range of data](#)<sup>[87]</sup> to be imported from the file, use the **Add range**  button.

To remove a range, use the **Delete range**  button.

Using the **Move Up**  and the **Move Down**  buttons you can change the order of ranges applied to data.

Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.


### 2.1.5.3 MS Word 2007

Specify ranges in the grid for the target and source fields:

- select a field of the target Interbase/Firebird table in the **New fields** list;
- proceed to the **Table** grid: click a column to assign the column to the selected target table field;
- the selected column of the source file gets gray highlight;
- repeat the operation for all the fields you need to be included in the import process.

If the source file and the destination Interbase/Firebird table have the same order of

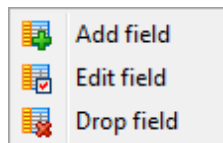
columns, you can use the  **Auto Fill Columns** mode (default) to set correspondence between them automatically. If source file and destination Interbase/

Firebird table have different order of columns but identical names you can use the  **Auto Fill by Captions** mode to set the correspondence based on name's identity.



The number of the column which correspondence is set for are displayed at the **Grid Column** column. You can use it for setting the fields correspondence as well.

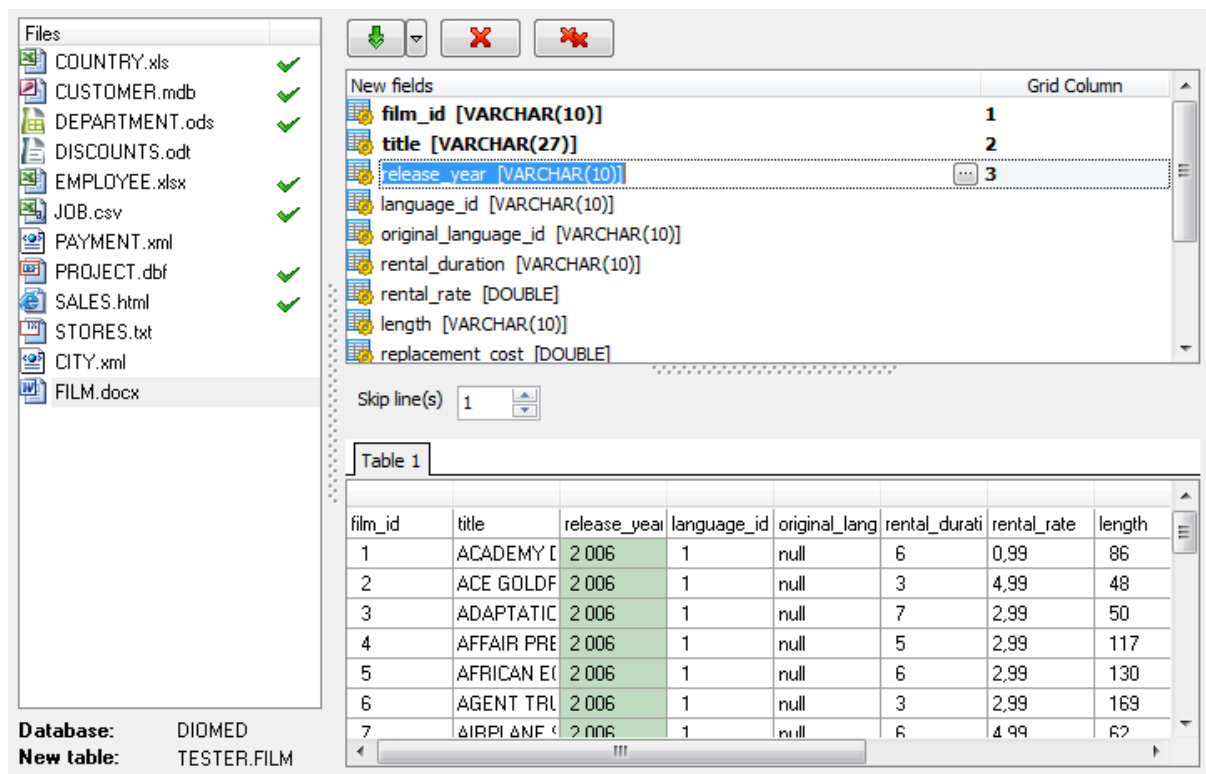
If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.


You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.




If necessary, you can choose to **skip** a defined number of the source file rows using the **Skip lines** spin-edit.

**Note:** If table was properly created or already exist, it will be marked with a tick . If an error occur during table creation, this table will be marked with a cross .



To remove a correspondence, select the field in the **New fields** list and press the  **Clear Field Ranges** button.

To remove all correspondences, press the  **Clear All Ranges** button.

Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.

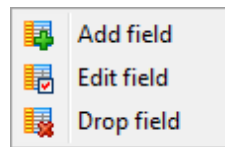
#### 2.1.5.4 MS Access

Set correspondence between the source MS Access fields and the target Interbase/Firebird table fields:

- select a field of the target Interbase/Firebird table in the **Table fields** list;
- select the corresponding field of the source MS Access table in the **Access Fields** list;
- click the **Add** button to set correspondence between the selected fields;
- the pair of fields appears in the list below;
- repeat the operation for all the fields you need to be included in the import process.

If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.

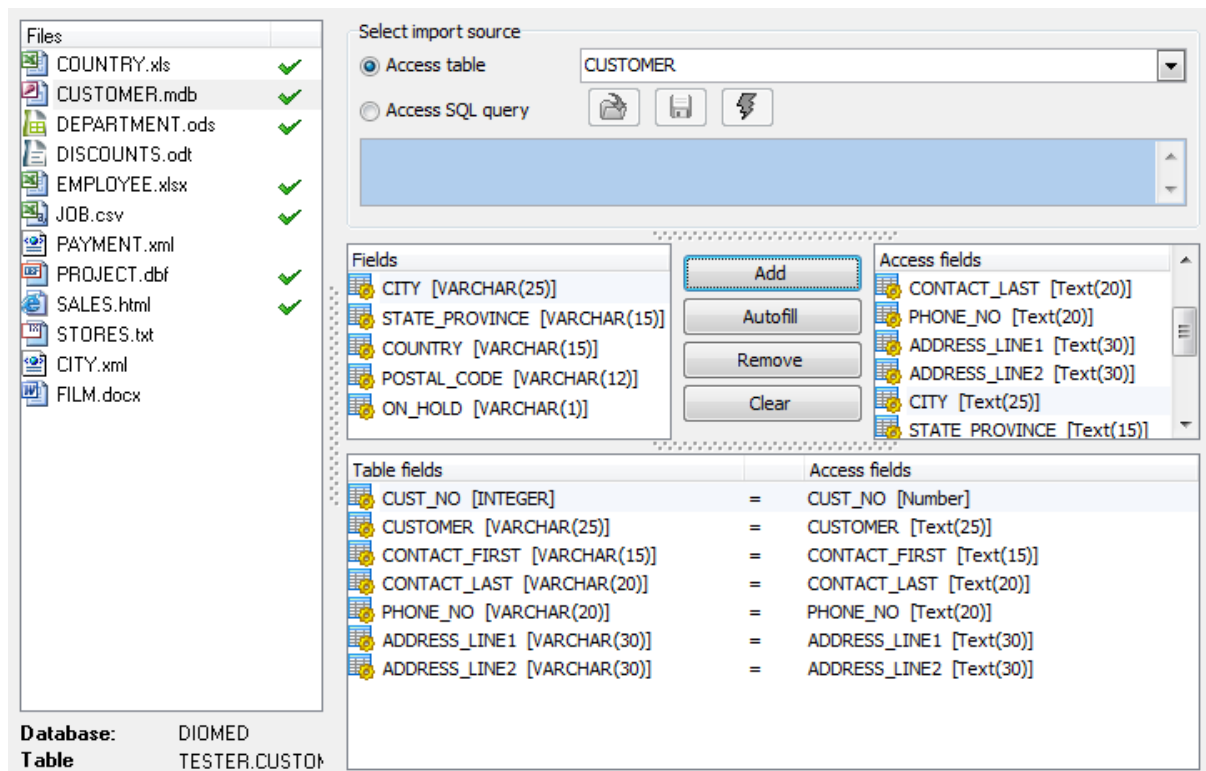
You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.



**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.

If you choose a query as the data source, you also can load a SQL query from a \*.sql file or save the current query text to a file using the **Load from File...** and the **Save to File...** buttons correspondingly.

Use the **Autofill** button to set correspondence between the source and target fields automatically on the basis of their order.



To remove a correspondence, select a pair of fields in the list below and press the **Remove** button.

To remove all correspondences, press the **Clear** button.

Click the **Next** button to proceed to the [Setting base data formats](#) <sup>[50]</sup> step of the wizard.

#### 2.1.5.5 DBF

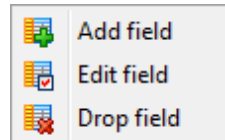
Set correspondence between the source DBF columns and the target Interbase/Firebird table fields:

- select a field of the target Interbase/Firebird table in the **Table Fields** list;

- select the corresponding column of the source DBF table in the **DBF Fields** list;
- click the **Add** button to set correspondence between the selected fields;
- the pair of fields appears in the list below;
- repeat the operation for all the fields you need to be included in the import process.

If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.

You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.



**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.

Use the **Autofill** button to set correspondence between the source and target fields automatically on the basis of their order.

### Charset

Use this field to specify the source file character set.

### ☒ Skip deleted rows

Use the option to exclude records marked as deleted in source DBF file.

Files

- COUNTRY.xls ✓
- CUSTOMER.mdb ✓
- DEPARTMENT.ods ✓
- DISCOUNTS.odt ✓
- EMPLOYEE.xlsx ✓
- JOB.csv ✓
- PAYMENT.xml ✓
- PROJECT.dbf ✓
- SALES.html ✓
- STORES.txt ✓
- CITY.xml ✓
- FILM.docx ✓

Fields

- PRODUCT [VARCHAR(12)]

DBF fields

- PROJ\_ID [Char(5)]
- PROJ\_NAME [Char(20)]
- PROJ\_DESC [Memo]
- TEAM\_LEADE [Number(11, 0)]
- PRODUCT [Char(12)]

Buttons: Add, Autofill, Remove, Clear

Charset: None

Table fields		DBF fields
PROJ_ID [VARCHAR(5)]	=	PROJ_ID [Char(5)]
PROJ_NAME [VARCHAR(20)]	=	PROJ_NAME [Char(20)]
PROJ_DESC [LONG VARCHAR]	=	PROJ_DESC [Memo]
TEAM_LEADER [SMALLINT]	=	TEAM_LEADE [Number(11, 0)]

Database: DIOMED  
Table: TESTER.PROJEC

☒ Skip deleted rows

To remove a correspondence, select the pair of fields in the list below and press the **Remove** button.

To remove all correspondences, press the **Clear** button.

Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.

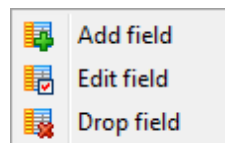
#### 2.1.5.6 XML

Set correspondence between the source XML columns and the target Interbase/Firebird table fields:

- select a field of the target Interbase/Firebird table in the **Table Fields** list;
- select the corresponding column of the source XML table in the **XML Fields** list;
- click the **Add** button to set correspondence between the selected fields;
- the pair of fields appears in the list below;
- repeat the operation for all the fields you need to be included in the import process.

If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.

You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.

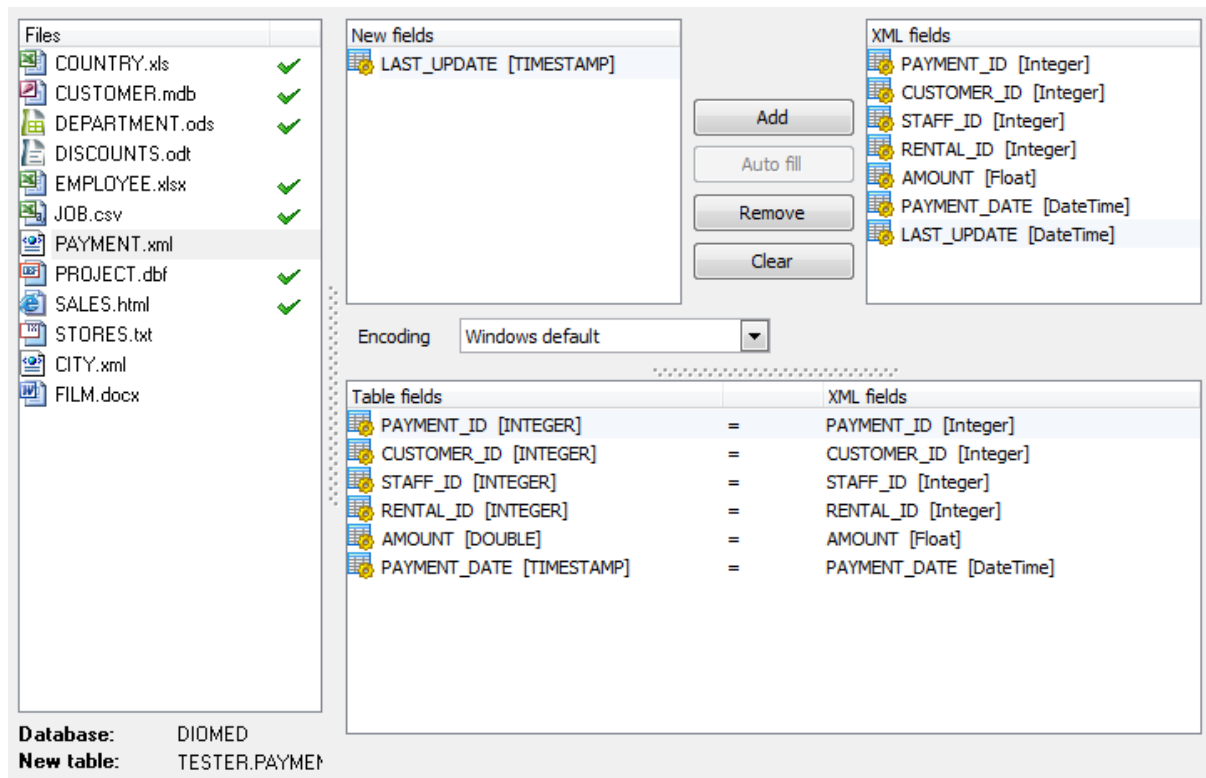


**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.

Use the **Autofill** button to set correspondence between the source and target fields automatically on the basis of their order.

#### Encoding

Use this field to select the file encoding.



To remove a correspondence, select the pair of fields in the list below and press the **Remove** button.

To remove all correspondences, press the **Clear** button.

Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.


#### 2.1.5.7 XML Document

In order to set mapping of a Generic XML document, you should first select the desired XML Document in the **Files** list, then press the **Build Tree** button to get the tree-like structure of source document in the area located to the right from the **New fields** list. Select a node in the tree to get its relative path or type the path manually in the editor below (the path must be specified in the XPath format). Upon pressing the **Fill grid** button the grid gets filled with *Sub Nodes Text* or *Attributes* values of the selected node.

**Note:** if the source XML document contains huge amount of data, building the tree may take a long time.

Set correspondence between the source XML file columns and the target Interbase/Firebird table fields:

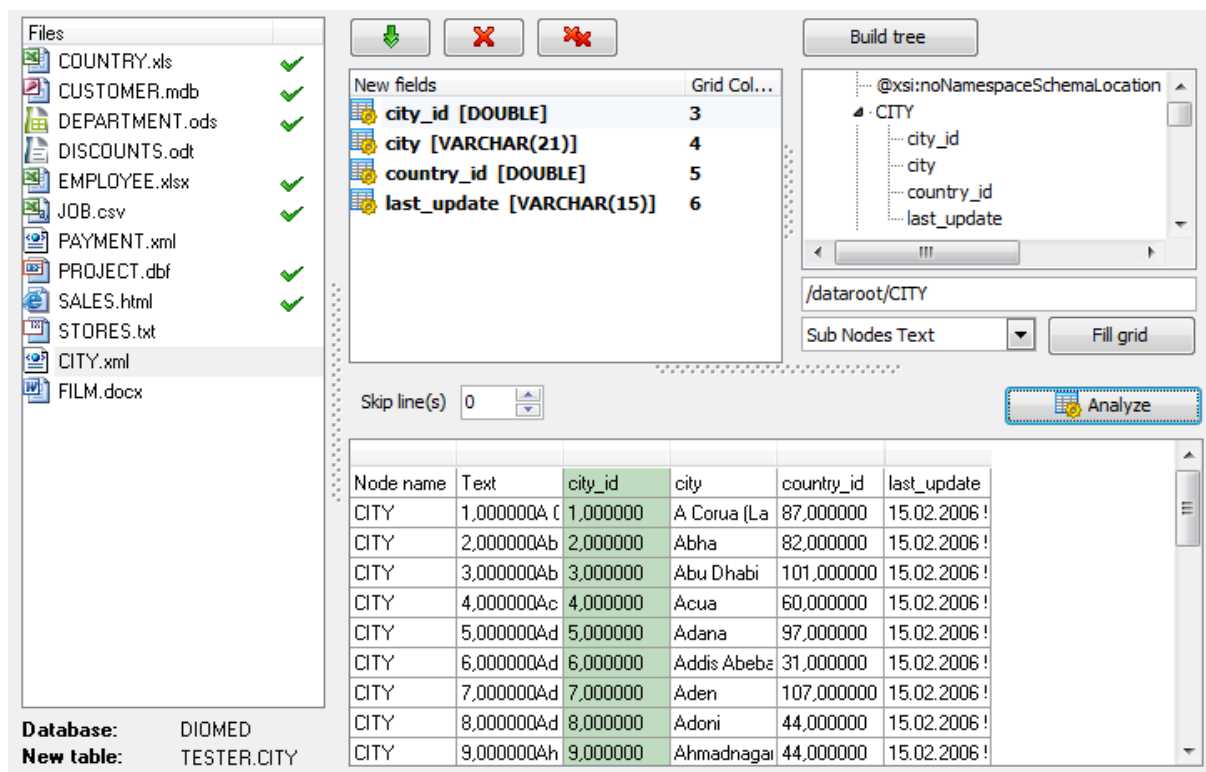
- select a field of the target Interbase/Firebird table in the **Fields** list;
- proceed to the source grid viewer area: click a column to assign the column to the selected target table field;
- the selected column of the source file gets gray highlight;
- repeat the operation for all the fields you need to be included in the import process.

You can use the  **Autofill** button to set correspondence between the source and target fields automatically according to their order (mapping is started from the first attribute value in this case).

When you import data to a newly created table, the **Analyze** button appears. Use this button for automatic field creation.

The number of the column which correspondence is set for are displayed at the **Grid Column** column. You can use it for setting the fields correspondence as well.

If necessary, you can choose to **skip** a defined number of the source file lines using the **Skip Lines** spin-edit.



Files

- COUNTRY.xls ✓
- CUSTOMER.mdb ✓
- DEPARTMENT.ods ✓
- DISCOUNTS.odt ✓
- EMPLOYEE.xlsx ✓
- JOB.csv ✓
- PAYMENT.xml ✓
- PROJECT.dbf ✓
- SALES.html ✓
- STORES.txt ✓
- CITY.xml ✓
- FILM.docx ✓

Build tree

New fields

Field	Grid Col...
city_id [DOUBLE]	3
city [VARCHAR(21)]	4
country_id [DOUBLE]	5
last_update [VARCHAR(15)]	6

Skip line(s) 0

Sub Nodes Text


Fill grid

Analyze

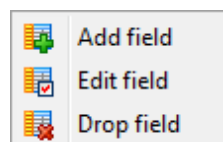
Node name	Text	city_id	city	country_id	last_update
CITY	1,000000Q4c	1,000000	A Corua (La	87,000000	15.02.2006 !
CITY	2,000000Q4b	2,000000	Abha	82,000000	15.02.2006 !
CITY	3,000000Q4b	3,000000	Abu Dhabi	101,000000	15.02.2006 !
CITY	4,000000Q4c	4,000000	Acua	60,000000	15.02.2006 !
CITY	5,000000Q4d	5,000000	Adana	97,000000	15.02.2006 !
CITY	6,000000Q4d	6,000000	Addis Abeba	31,000000	15.02.2006 !
CITY	7,000000Q4d	7,000000	Aden	107,000000	15.02.2006 !
CITY	8,000000Q4d	8,000000	Adoni	44,000000	15.02.2006 !
CITY	9,000000Q4h	9,000000	Ahmadnagai	44,000000	15.02.2006 !

Database: DIOMED

New table: TESTER.CITY

To remove all correspondences, press the  **Clear All Ranges** button.

If you choose to import data to the newly created table, at this step you need to create necessary fields. Use the corresponded context menu item to [manage fields](#) <sup>[85]</sup>.



**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occurs during table creation, this table will be marked with a cross ✗.

Click the **Next** button to proceed to the [Setting base data formats](#)  step of the wizard.

#### 2.1.5.8 TXT

Set correspondence between the source text file columns and the target Interbase/Firebird table fields:

- select a field of the target Interbase/Firebird table in the **Fields** list;
- double-click in the text viewer area to add vertical separators delimiting the source column bounds;
- click the area between the separators to assign the column to the selected target table field - the selected source column gets black highlight;
- repeat the operation for all the fields you need to be included in the import process.


The **Fields** list also allows you to view the following values:

**P** represents the starting point of your selection;

**S** displays the width of the selected area.

You can change these parameters manually or by moving the slider in the grid.

If necessary, you can choose to **skip** a defined number of the source file lines using the **Skip lines** spin-edit.

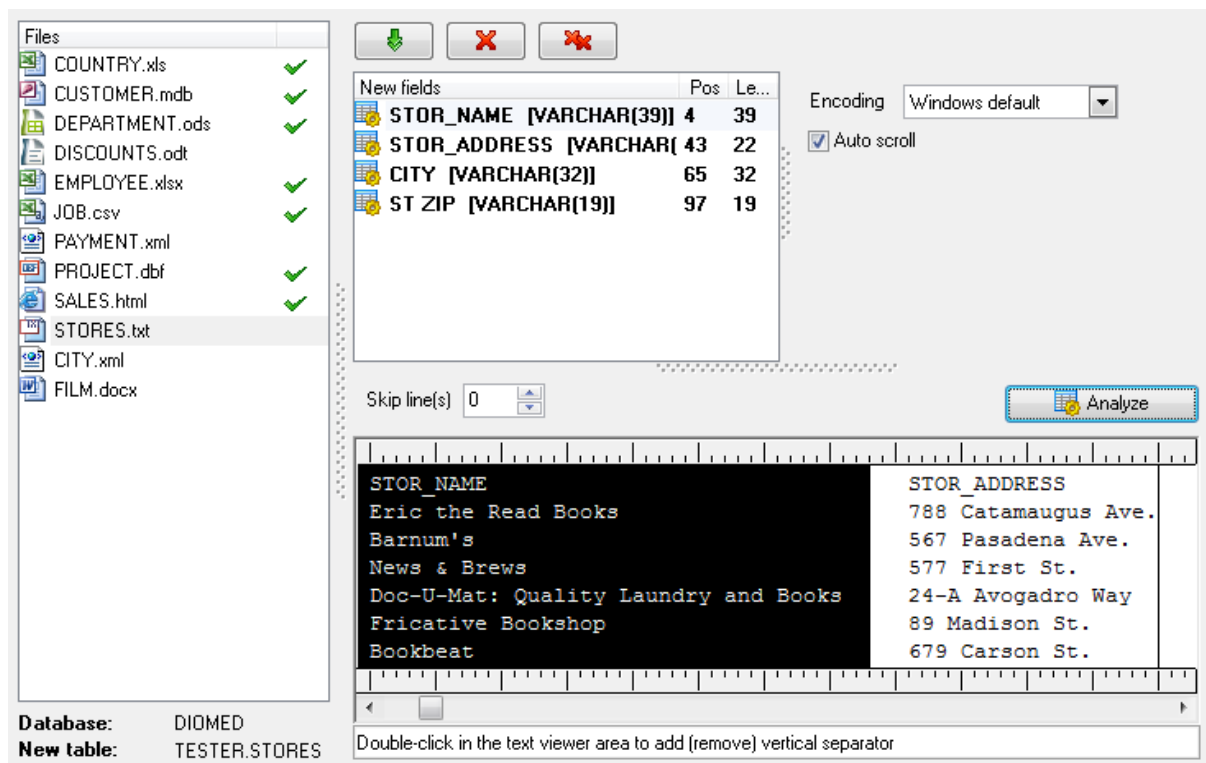
If the source text file and the destination Interbase/Firebird table have the same order of columns, you can use the  **Autofill Columns** button to set correspondence between them automatically.


The source file character set can be defined at the **Encoding** field.

##### ☒ **Autoscroll**

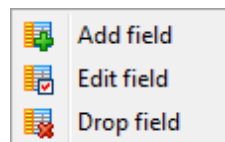
This option scrolls the document automatically when you switch to the next field for mapping.

When you import data to a newly created table, the **Analyze** button appears. Use this button for automatic field creation.



To remove all correspondences, press the  **Clear All Ranges** button.

If you choose to import data to the newly created table, at this step you need to create necessary fields. Use the corresponded context menu item to [manage fields](#)<sup>[85]</sup>.



**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.


Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.


#### 2.1.5.9 CSV

Set correspondence between the target table fields and the source CSV file columns:

- select the **Delimiter** and **Quote** characters for CSV files using the corresponding drop-down lists of the **CSV Parameters** group;
- select a field of the target Interbase/Firebird table in the **Fields** list;
- proceed to the source grid viewer area: click a caption to assign the column to the selected target table field;
- the selected column of the source file gets gray highlight;
- repeat the operation for all the fields you need to be included in the import process.

The source file character set can be defined at the **Encoding** field.

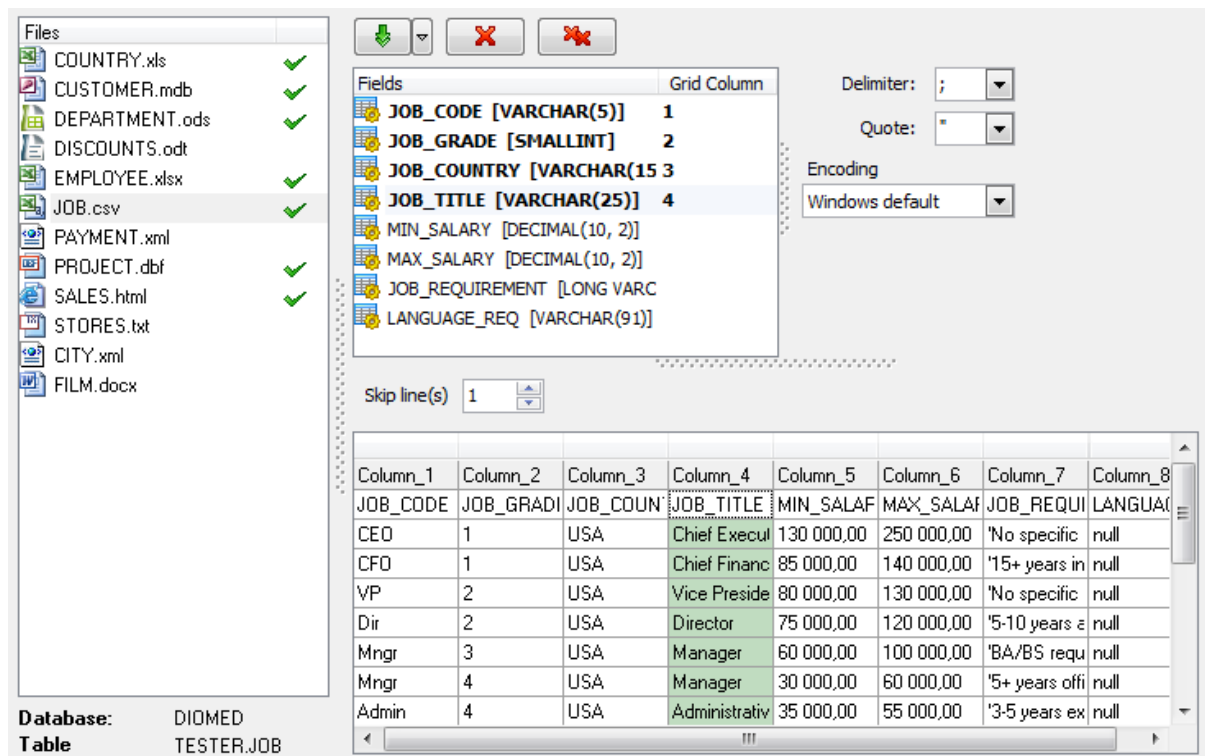
If the source file and the destination Interbase/Firebird table have the same order of columns, you can use the  **Auto Fill Columns** mode (default) to set correspondence between them automatically. If source file and destination Interbase/

Firebird table have different order of columns but identical names you can use the  **Auto Fill by Captions** mode to set the correspondence based on name's identity.


When you import data to a newly created table, the **Analyze** button appears. Use this button for automatic field creation.

If necessary, you can choose to **skip** a defined number of the source file rows using the **Skip lines** spin-edit.

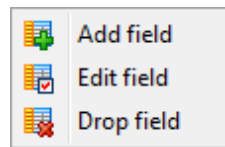
The number of the column which correspondence is set for are displayed at the **Grid Column** column. You can use it for setting the fields correspondence as well.



Column_1	Column_2	Column_3	Column_4	Column_5	Column_6	Column_7	Column_8
JOB_CODE	JOB_GRADE	JOB_COUNTRY	JOB_TITLE	MIN_SALARY	MAX_SALARY	JOB_REQUIREMENT	LANGUAGE_REQUIREMENT
CEO	1	USA	Chief Executive	130 000,00	250 000,00	'No specific	null
CFO	1	USA	Chief Financial Officer	85 000,00	140 000,00	'15+ years in	null
VP	2	USA	Vice President	80 000,00	130 000,00	'No specific	null
Dir	2	USA	Director	75 000,00	120 000,00	'5-10 years ex	null
Mngr	3	USA	Manager	60 000,00	100 000,00	'BA/BS requ	null
Mngr	4	USA	Manager	30 000,00	60 000,00	'5+ years offi	null
Admin	4	USA	Administrative	35 000,00	55 000,00	'3-5 years ex	null

To remove all correspondences, press the  **Clear All Ranges** button.

If you choose to import data to the newly created table, at this step you need to create necessary fields. Use the corresponded context menu item to [manage fields](#)<sup>85</sup>.



**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.

Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.


#### 2.1.5.10 HTML

Set correspondence between the target table fields and the source HTML file columns:

- select a field of the target Interbase/Firebird table in the **New fields** list;
- proceed to the source grid viewer area: click a column to assign the column to the selected target table field;
- the selected column of the source file gets gray highlight;
- repeat the operation for all the fields you need to be included in the import process.

If the source file and the destination Interbase/Firebird table have the same order of

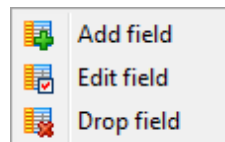
columns, you can use the  **Auto Fill Columns** mode (default) to set correspondence between them automatically. If source file and destination Interbase/

Firebird table have different order of columns but identical names you can use the  **Auto Fill by Captions** mode to set the correspondence based on name's identity.

The number of the column which correspondence is set for are displayed at the **Grid Column** column. You can use it for setting the fields correspondence as well.

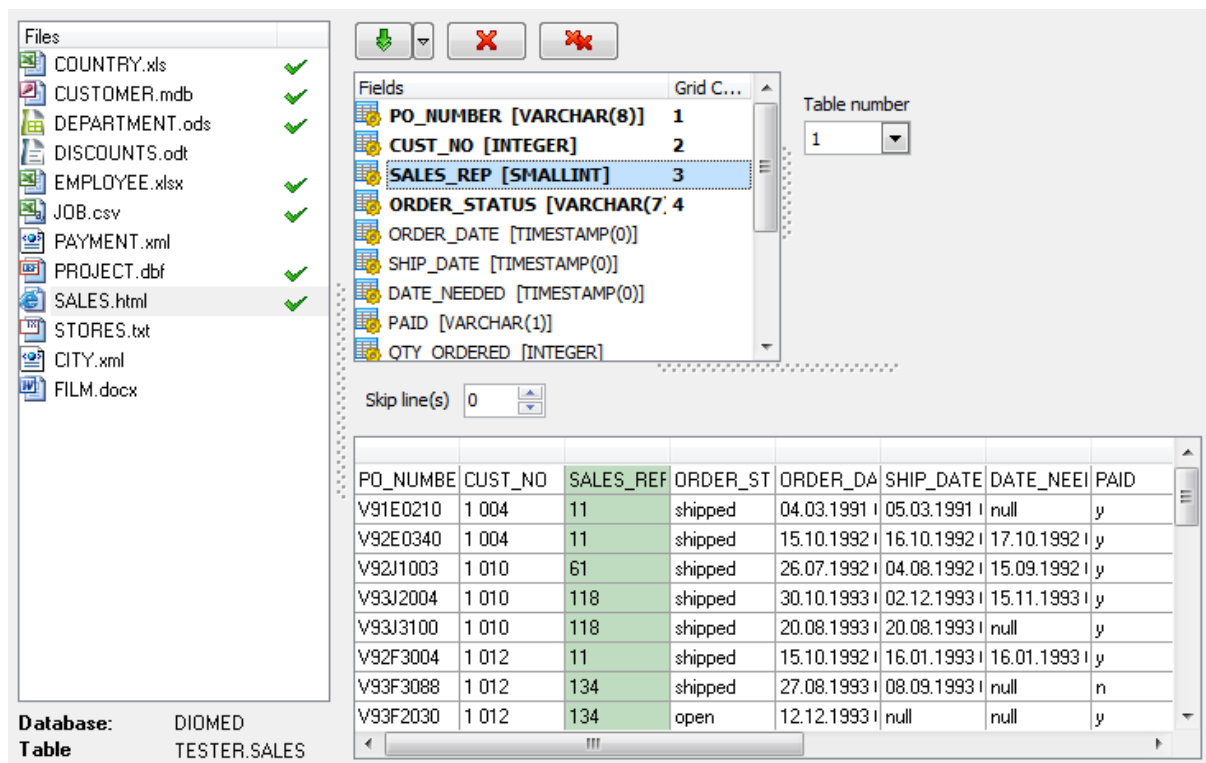
If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.


You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.



If necessary, you can choose to **skip** a defined number of the source file rows using the **Skip lines** spin-edit.

**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.



To remove all correspondences, press the  **Clear All Ranges** button.

Click the **Next** button to proceed to the [Setting base data formats](#) <sup>[50]</sup> step of the wizard.

#### 2.1.5.11 ODS


The **OpenDocument** format is used by Mobile Office, as well as other well-known desktop applications, such as OpenOffice, StarOffice and KOffice. **ODS** stands for **OpenDocument Spreadsheet** (\*.ods).

Specify ranges in the grid for the target and source fields:

- select a field of the target Interbase/Firebird table in the **New fields** list;
- proceed to the **Sheet** grid: click a column to assign the column to the selected target table field;
- the selected column of the source file gets gray highlight;
- repeat the operation for all the fields you need to be included in the import process.

If the source file and the destination Interbase/Firebird table have the same order of

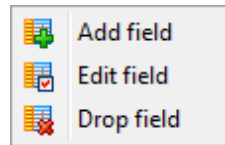
columns, you can use the  **Auto Fill Columns** mode (default) to set correspondence between them automatically. If source file and destination Interbase/

Firebird table have different order of columns but identical names you can use the  **Auto Fill by Captions** mode to set the correspondence based on name's identity.

The number of the column which correspondence is set for are displayed at the **Grid Column** column. You can use it for setting the fields correspondence as well.

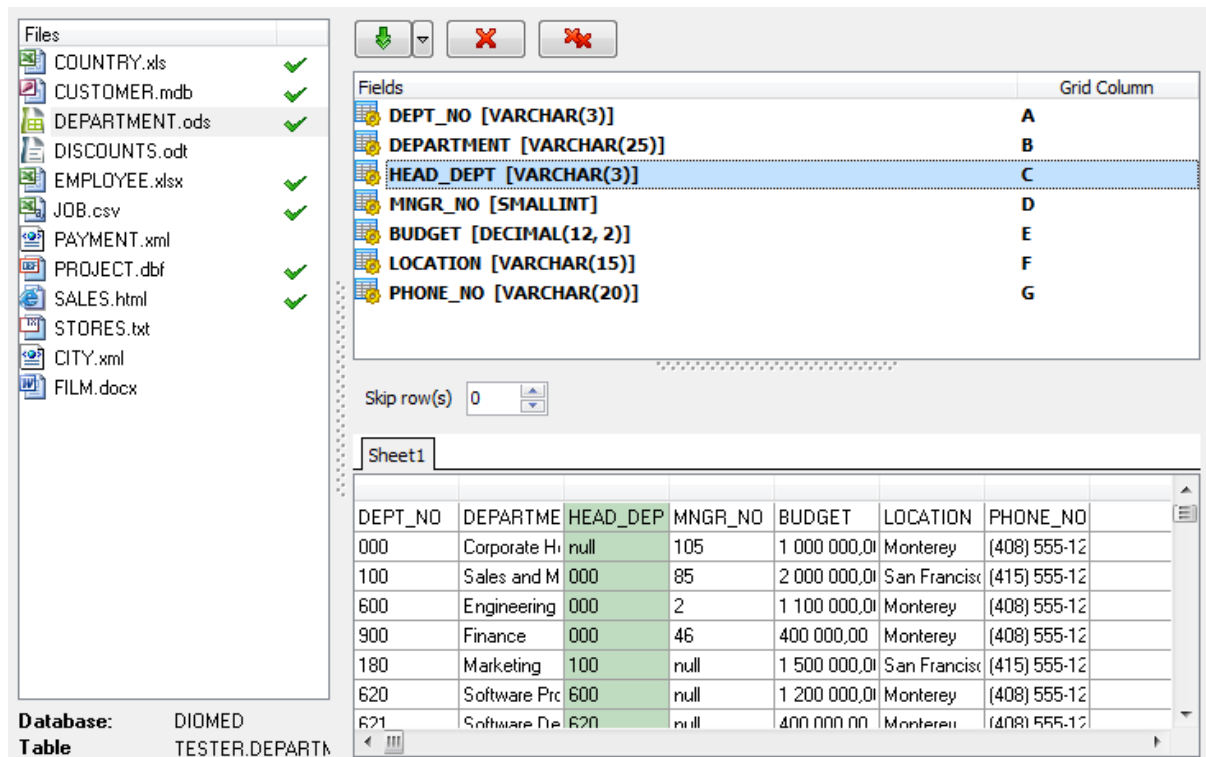
If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.

You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.



If necessary, you can choose to **skip** a defined number of the source file rows using the **Skip lines** spin-edit.

**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.



To remove a correspondence, select the field in the **New fields** list and press the **Clear Field Ranges** button.

To remove all correspondences, press the **Clear All Ranges** button.

If your OpenDocument Spreadsheet file contains several sheets, you are able to set different mapping for each sheet.


Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.


### 2.1.5.12 ODT

The **OpenDocument** format is used by Mobile Office, as well as other well known desktop applications such as OpenOffice, StarOffice and KOffice. **ODT** stands for **OpenDocument Text** (.odt).

Specify ranges in the grid for the target and source fields:

- select a field of the target Interbase/Firebird table in the **New fields** list;
- proceed to the **Table** grid: click a column to assign the column to the selected target table field;
- the selected column of the source file gets gray highlight;
- repeat the operation for all the fields you need to be included in the import process.

If the source file and the destination Interbase/Firebird table have the same order of columns, you can use the  **Auto Fill Columns** mode (default) to set correspondence between them automatically. If source file and destination Interbase/

Firebird table have different order of columns but identical names you can use the  **Auto Fill by Captions** mode to set the correspondence based on name's identity.

The number of the column which correspondence is set for are displayed at the **Grid Column** column. You can use it for setting the fields correspondence as well.

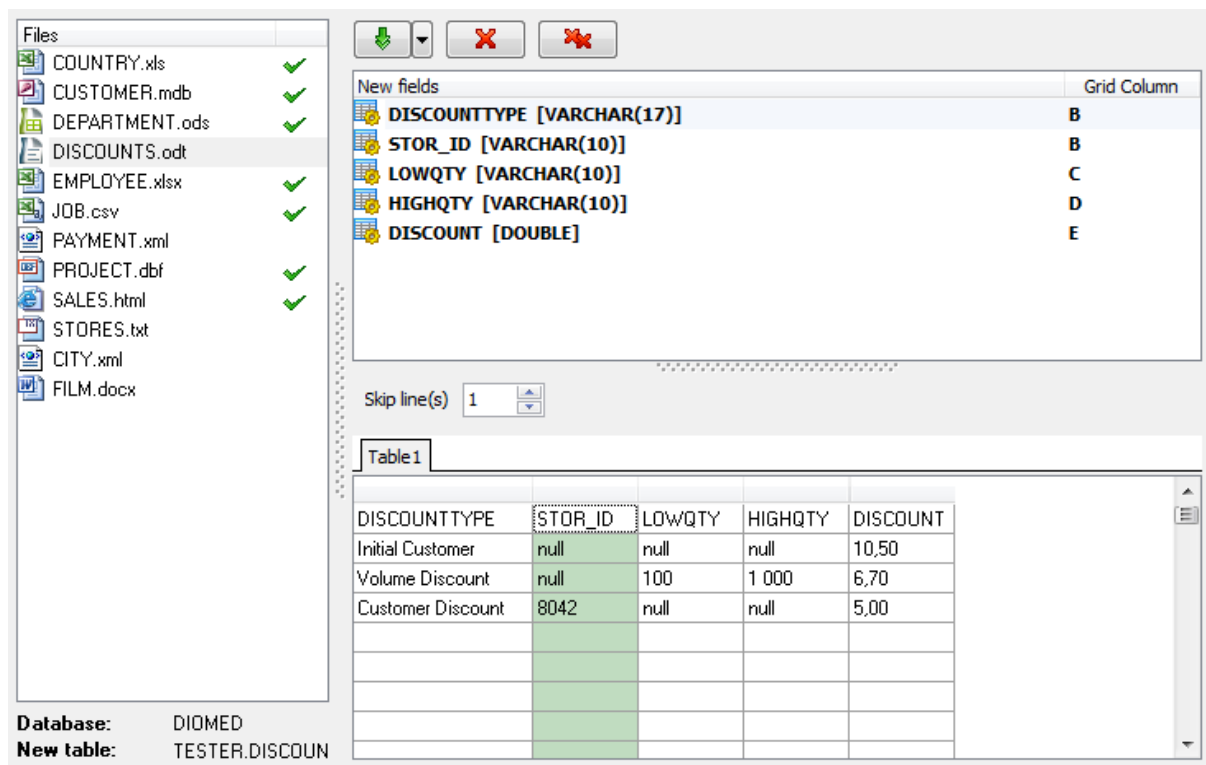
If new table creation was selected at the [previous step](#)<sup>[27]</sup>, then fields needed for the import procedure will be created automatically.


You can [manage destination table fields](#)<sup>[85]</sup> if needed. Use the corresponded context menu item to **Add/Edit/Drop** field.




If necessary, you can choose to **skip** a defined number of the source file rows using the **Skip lines** spin-edit.

**Note:** If table was properly created or already exist, it will be marked with a tick ✓. If an error occur during table creation, this table will be marked with a cross ✗.



To remove a correspondence, select the field in the **Fields** list and press the  **Clear Field Ranges** button.

To remove all correspondences, press the  **Clear All Ranges** button.

If your OpenDocument Text file contains several tables, you are able to set different mapping for each table.

Click the **Next** button to proceed to the [Setting base data formats](#)<sup>[50]</sup> step of the wizard.

### 2.1.6 Step 5 - Setting base data formats

This step of the wizard provides a number of options for setting **base formats** for each source data file. The specified format should match the source data representation.

Files

- COUNTRY.xls
- CUSTOMER.mdb
- DEPARTMENT.ods
- DISCOUNTS.odt
- EMPLOYEE.xlsx
- JOB.csv
- PAYMENT.xml
- PROJECT.dbf
- SALES.html
- STORES.txt
- CITY.xml
- FILM.docx

Separators

Decimal ,

Thousand #160

Date .

Time :

Constants

Boolean true True

Boolean false False

Null values Null

Date/Time formats

Date dd.MM.yyyy

Time h:mm

Database: DIOMED

Table TESTER.COUNTRY

☐ Skip this step

## Separators

*Decimal, Thousand, Date, Time*

### Decimal

Set a character to delimit the decimal parts of the imported numbers.

### Thousand

Set a character to separate the digit groups in the imported numbers.

### Date

Set a character to separate the year, month and day parts of date values.

### Time

Set a character to separate the hour, minute and second parts of time values.

## Constants

### Boolean True

Set one or more variants of TRUE value representation in the imported table, e.g. 'Yes' or '+'. Use a new line for each additional variant.

### Boolean False

Set one or more variants of FALSE value representation in the imported table, e.g. 'No' or '-'. Use a new line for each additional variant.

### Null Values

Set one or more variants of NULL value representation in the imported table, e.g. 'Null'.

Use a new line for each additional variant.

### **Date/Time formats**

Use these edit fields to set the date and time formats: *Date*, *Time*.

For more information refer to the [Format specifiers](#)<sup>[52]</sup> page.

#### ☒ **Skip this step**

Check this option to skip the current step in the future. To edit the list of skipped steps, use the **Skipped Steps** group available in the [General](#)<sup>[69]</sup> section of the [Preferences](#)<sup>[69]</sup> dialog.

When you are done, press the **Next** button to proceed to the [next step](#)<sup>[55]</sup>.

### **2.1.6.1 Format specifiers**

The following format specifiers are supported in the format string:

#### **Float/Integer format**

##### **0**

Digit place holder. If the value being formatted has a digit in the position where the '0' appears in the format string, then that digit is copied to the output string. Otherwise, a '0' is stored in that position in the output string.

##### **#**

Digit placeholder. If the value being formatted has a digit in the position where the '#' appears in the format string, then that digit is copied to the output string. Otherwise, nothing is stored in that position in the output string.

##### **.**

Decimal point. The first '.' character in the format string determines the location of the decimal separator in the formatted value; any additional '.' characters are ignored.

##### **,**

Thousand separator. If the format string contains one or more ',' characters, the output will have thousand separators inserted between each group of three digits to the left of the decimal point. The placement and number of ',' characters in the format string does not affect the output, except to indicate that thousand separators are wanted.

##### **E+**

Scientific notation. If any of the strings 'E+', 'E-', 'e+', or 'e-' are contained in the format string, the number is formatted using scientific notation. A group of up to four '0' characters can immediately follow the 'E+', 'E-', 'e+', or 'e-' to determine the minimum number of digits in the exponent. The 'E+' and 'e+' formats cause a plus sign to be output for positive exponents and a minus sign to be output for negative exponents. The 'E-' and 'e-' formats output a sign character only for negative exponents.

#### **Date/Time format**

**c**

Displays the date using the format using the Short Date Format, followed by the time using the Long Time Format. The time is not displayed if the date-time value indicates midnight precisely.

**d**

Displays the day as a number without a leading zero (1-31).

**dd**

Displays the day as a number with a leading zero (01-31).

**ddd**

Displays the day as an abbreviation (Sun-Sat) using the strings of the Short Day Names.

**dddd**

Displays the day as a full name (Sunday-Saturday) using the strings of the Long Day Names.

**dddddd**

Displays the date using the Short Date Format.

**ddddddd**

Displays the date using the Long Date Format.

**e**

Displays the year in the current period/era as a number without a leading zero (Japanese, Korean and Taiwanese locales only).

**ee**

Displays the year in the current period/era as a number with a leading zero (Japanese, Korean and Taiwanese locales only).

**g**

Displays the period/era as an abbreviation (Japanese and Taiwanese locales only).

**gg**

Displays the period/era as a full name. (Japanese and Taiwanese locales only).

**m**

Displays the month as a number without a leading zero (1-12). If the m specifier immediately follows an h or hh specifier, the minute rather than the month is displayed.

**mm**

Displays the month as a number with a leading zero (01-12). If the mm specifier immediately follows an h or hh specifier, the minute rather than the month is displayed.

**mmm**

Displays the month as an abbreviation (Jan-Dec) using the strings given of the Short Month Names.

**mmmm**

Displays the month as a full name (January-December) using the strings of the Long Month Names.

**yy**

Displays the year as a two-digit number (00-99).

**yyyy**

Displays the year as a four-digit number (0000-9999).

**h**

Displays the hour without a leading zero (0-23).

**hh**

Displays the hour with a leading zero (00-23).

**n**

Displays the minute without a leading zero (0-59).

**nn**

Displays the minute with a leading zero (00-59).

**s**

Displays the second without a leading zero (0-59).

**ss**

Displays the second with a leading zero (00-59).

**z**

Displays the millisecond without a leading zero (0-999).

**zzz**

Displays the millisecond with a leading zero (000-999).

**t**

Displays the time using the Short Time Format.

**tt**

Displays the time using the Long Time Format.

**am/pm**

Uses the 12-hour clock for the preceding h or hh specifier, and displays 'am' for any hour before noon, and 'pm' for any hour after noon. The am/pm specifier can use lower, upper, or mixed case, and the result is displayed accordingly.

**a/p**

Uses the 12-hour clock for the preceding h or hh specifier, and displays 'a' for any hour before noon, and 'p' for any hour after noon. The a/p specifier can use lower, upper, or mixed case, and the result is displayed accordingly.

**ampm**

Uses the 12-hour clock for the preceding h or hh specifier, and displays the contents of the TimeAMString global variable for any hour before noon, and the contents of the TimePMString global variable for any hour after noon.

/

Displays the date separator character using the Date Separator.

:

Displays the time separator character using the Time Separator.

'xx'/"xx"

Characters enclosed in single or double quotes are displayed as-is, and do not affect formatting.

### 2.1.7 Step 6 - Settings data formats for each field

This step of the wizard allows you to set **formats** for each imported field separately, in case additional formatting is required.

Select a field in the list and use the **Field Customization** group to adjust format options that will be applied to this field only: *generator value*, *generator step*, *constant value*, *NULL value*, *default value*, *function*, *script*, *left/right quotation*, *quotation action*, *character case*, *character set*.

#### **Generator value**

Use this field to set the initial value of the autoincrement field.

#### **Generator step**

Set the step of the autoincrement field. If it is 0 or if the field is of *Identity* one, then the value of the generator will be ignored.

#### **Constant value**

Use this field to set a constant value for the field.

#### **Null value**

Set the value which will be considered as NULL to set the default value.

#### **Default value**

Set the default value of the NULL field.

**Files**

- COUNTRY.xls
- CUSTOMER.mdb
- DEPARTMENT.ods
- DISCOUNTS.odt
- EMPLOYEE.xlsx**
- JOB.csv
- PAYMENT.xml
- PROJECT.dbf
- SALES.html
- STORES.txt
- CITY.xml
- FILM.docx

**Field**

- EMP\_NO [SMALLINT]
- FIRST\_NAME [VARCHAR(15)]
- LAST\_NAME [VARCHAR(20)]
- PHONE\_EXT [VARCHAR(4)]
- HIRE\_DATE [TIMESTAMP(0)]
- DEPT\_NO [VARCHAR(3)]
- JOB\_CODE [VARCHAR(5)]
- JOB\_GRADE [SMALLINT]
- JOB\_COUNTRY [VARCHAR(15)]
- SALARY [DECIMAL(10, 2)]
- FULL\_NAME [VARCHAR(37)]

**Field Customization**

Generator value: 0

Generator step: 0

Constant value:

Null value:

Default value:

Function: None

Script:

Left quotation:

Right quotation:

Quotation action: None

Char case: As Is

Char set: As Is

**Replacements**

Text to Find	Replace With	Ignore Case


Database: DIOMED  
Table: TESTER.EMPLOYEE

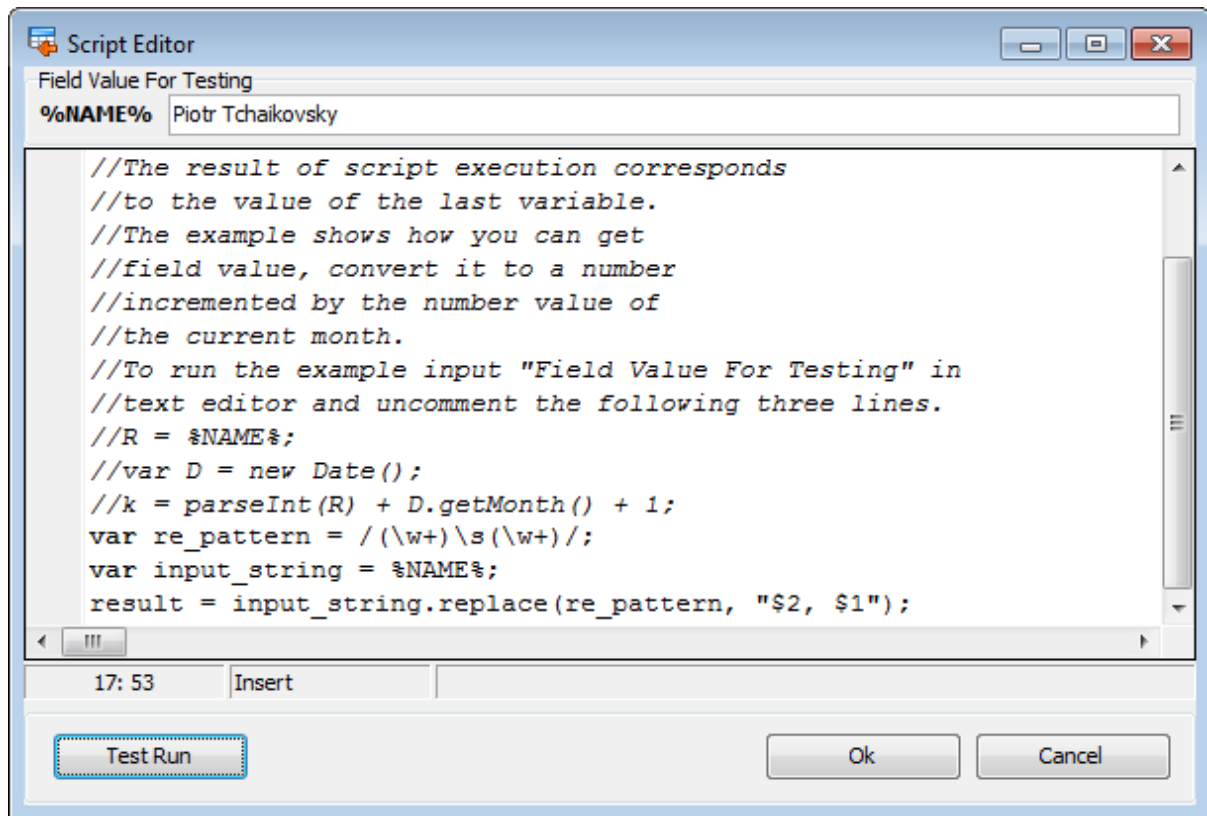
☐ Skip this step

### Function

Use the drop-down list to select one of the function return values that can be set in the field: *Date, Time, Date&Time, Long File Name, Short File Name*.

### Script

Press the  button to add/edit the script in the **Script Editor**.



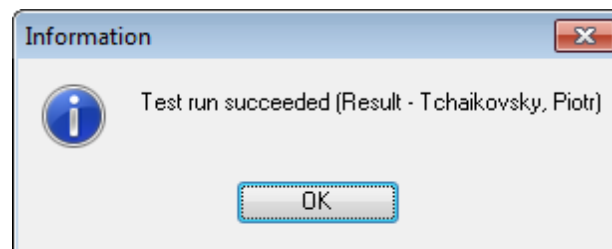
Use the **Script Editor** window to enter the script for the field processing. Here you can use all features of the MS JScript.

The picture above shows the example of the Jscript use for the field *Name* processing. The entered code converts the 'XXXX YYYY' string to the 'YYYY, XXXX' one, for example 'Piotr Tchaikovsky' -> 'Tchaikovsky, Piotr'.

If you want to test your code and see the result of its execution then enter the test field value in the **Field Value For Testing** box and click the **Test Run** button.

If the execution fails you see the message box with the description of an occurred mistake.

If the execution succeeds you see the message box with the result as it is shown on the picture below.



For more information about JScript, see <http://msdn.microsoft.com/en-us/library/x85xxsf4.aspx>.

## Quotation

### Left quotation

Set a character or a number of characters to denote quoting in the imported string.

### Right quotation

Set a character or a number of characters to denote unquoting in the imported string.

### Quotation action

You can select the *Add* item to add quotation marks to the imported string, the *Remove* item to remove all the quotation marks from the imported string, or the *None* item to save the original quotation marks.


## String conversion

### Char case

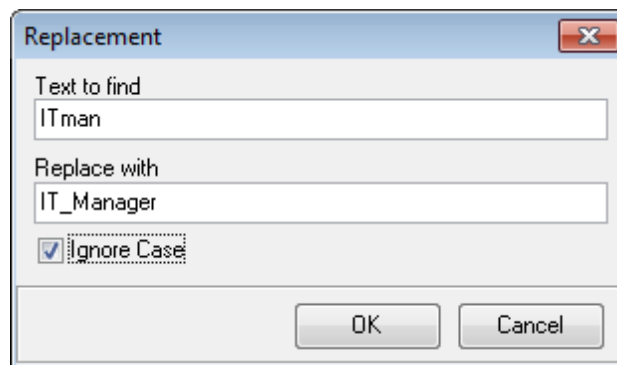
Set the case of the imported string. *As Is* keeps the original string unchanged, *Upper* sets the whole string to the upper case, *Lower* sets the whole string to the lower case, *UpperFirst* sets the first character of the string to the upper case, *UpperFirstWord* sets the first character of each word to the upper case.


### Char set

Set the char set of the imported string to *ANSI* or *OEM*. *As Is* saves the original character set of the string.

The **Replacements** area allows you to set the text you need to be replaced during data import into the selected field. Press the **Add Replacement...**  button to specify a new replacement options using the **Add Replacement** dialog.

Define the text to replace and the value to replace with in the appeared dialog window. Check the **Ignore Case** option to make replacement case-insensitive.



To remove a replacement, select it in the list and click the **Delete Replacement...**  button.

### ☒ Skip this step

Check this option to skip the current step in the future. To edit the list of skipped steps, use the **Skipped Steps** group available in the [General](#) section of the [Preferences](#) dialog.

When you are done, press the **Next** button to proceed to the [next step](#).

## 2.1.8 Step 7 - Specifying import mode

This step of the wizard allows you to define **the records processing mode** as *Insert All*, *Insert New*, *Update*, *Update or Insert*, *Delete*, *Delete or Insert* mode:

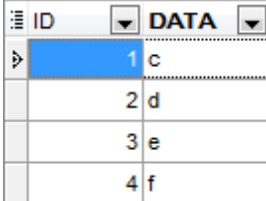

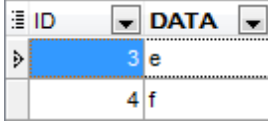
- **Insert all:** all records from the source file are inserted into the tables irrespective of whether any records exist in the destination table or not
- **Insert new:** already existing records are skipped, and new records are inserted into the destination table
- **Update:** all existing records are updated from the source file
- **Update or insert:** already existing records are updated and new records are inserted into the destination table
- **Delete:** already existing records are deleted
- **Delete or insert:** existing records are deleted and new records are inserted into the destination table

Here is an **example** of some import modes offered by Data Import utility:

DB Table		Source file	
ID	DATA	A	B
1	a	1	c
2	b	2	d
4	f	3	e

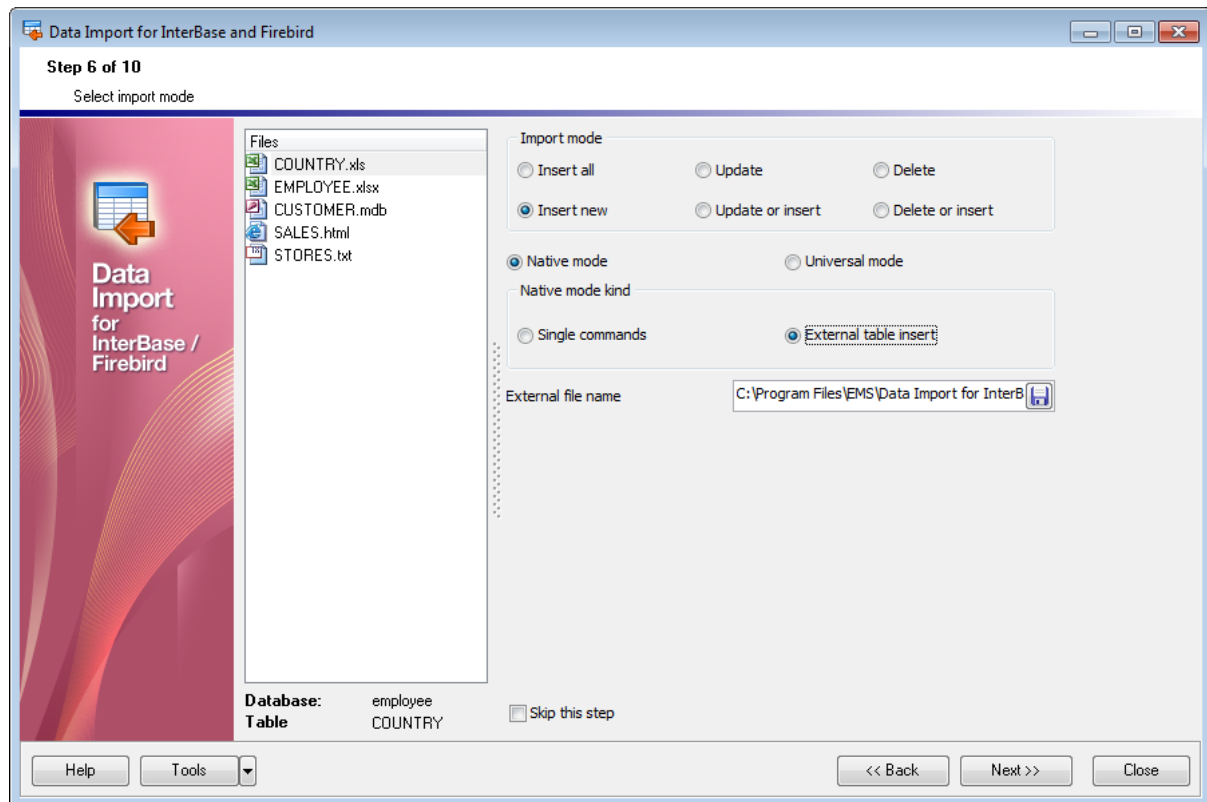
All import modes (except for the **Insert All** mode) are based on primary key values information. In order to perform import operations with these modes used you need to have matches between the source file primary key column(s) and the destination table primary key column(s).

Insert mode	Insert all	Insert new	Update																																
Result	<table><tr><th>ID</th><th>DATA</th></tr><tr><td>1</td><td>c</td></tr><tr><td>1</td><td>a</td></tr><tr><td>2</td><td>b</td></tr><tr><td>2</td><td>d</td></tr><tr><td>3</td><td>e</td></tr><tr><td>4</td><td>f</td></tr></table>	ID	DATA	1	c	1	a	2	b	2	d	3	e	4	f	<table><tr><th>ID</th><th>DATA</th></tr><tr><td>1</td><td>a</td></tr><tr><td>2</td><td>b</td></tr><tr><td>3</td><td>e</td></tr><tr><td>4</td><td>f</td></tr></table>	ID	DATA	1	a	2	b	3	e	4	f	<table><tr><th>ID</th><th>DATA</th></tr><tr><td>1</td><td>c</td></tr><tr><td>2</td><td>d</td></tr><tr><td>4</td><td>f</td></tr></table>	ID	DATA	1	c	2	d	4	f
ID	DATA																																		
1	c																																		
1	a																																		
2	b																																		
2	d																																		
3	e																																		
4	f																																		
ID	DATA																																		
1	a																																		
2	b																																		
3	e																																		
4	f																																		
ID	DATA																																		
1	c																																		
2	d																																		
4	f																																		

Insert mode	Update or insert	Delete	Delete or insert
Result			

It is applied to all other import modes, except for the **Insert all** mode. For all these modes (except for the **Insert all** mode) it is obligatory to select the primary key fields. This field (or fields) is used as key field to identify specific data in the target database.

The key columns for these operations are defined at the [Selecting key columns](#)<sup>[61]</sup> step of the wizard.



If the *Update* value is selected for Import Mode, then you need to specify the Primary Key field(s) that will serve for data identification of your source file with the data of the target table. The source file must contain the column(s) that will correspond to the Primary Key field of the target table. If the target table contains a record in which the value of the primary key field coincides with the value of the corresponding column of the source table, the data stored in this table record will be updated. You can specify the field(s) which will be used for identification at [Step 7](#)<sup>[61]</sup> of the wizard. This field(s) will only serve for identification and will not be imported.

**Native / Universal mode**

The *Native* mode uses the *Single Commands* method or the *External table insert* method. First method serves to generate and execute single SQL commands on the server.

The second mode should be used if the server is installed on your local machine. In this case the defined in the **External file name** field file is created with the necessary data and then this data is copied to the created table by means of the server.

With the help of the *Native* mode your data can be imported dozen (!) times faster as compared to the *Universal* mode which is used for backward compatibility.

If you have chosen *Universal mode* and the import mode is set to *Insert new*, *Update or insert*, *Delete or insert* then the ☒ **Allow duplicates** option can be set. If it is chosen then on inserting a record in a table it will be inserted even if it coincides with an existing one but the key fields differ.

☒ **Truncate Long Strings**

If this option is enabled the long strings are truncated. This option is available only in the **Universal** mode.

☒ **Skip this step**

Check this option to skip the current step in the future. To edit the list of skipped steps, use the **Skipped Steps** group available in the [General](#)<sup>[69]</sup> section of the [Preferences](#)<sup>[69]</sup> dialog.

When you are done, press the **Next** button to proceed to the [next step](#)<sup>[61]</sup>.

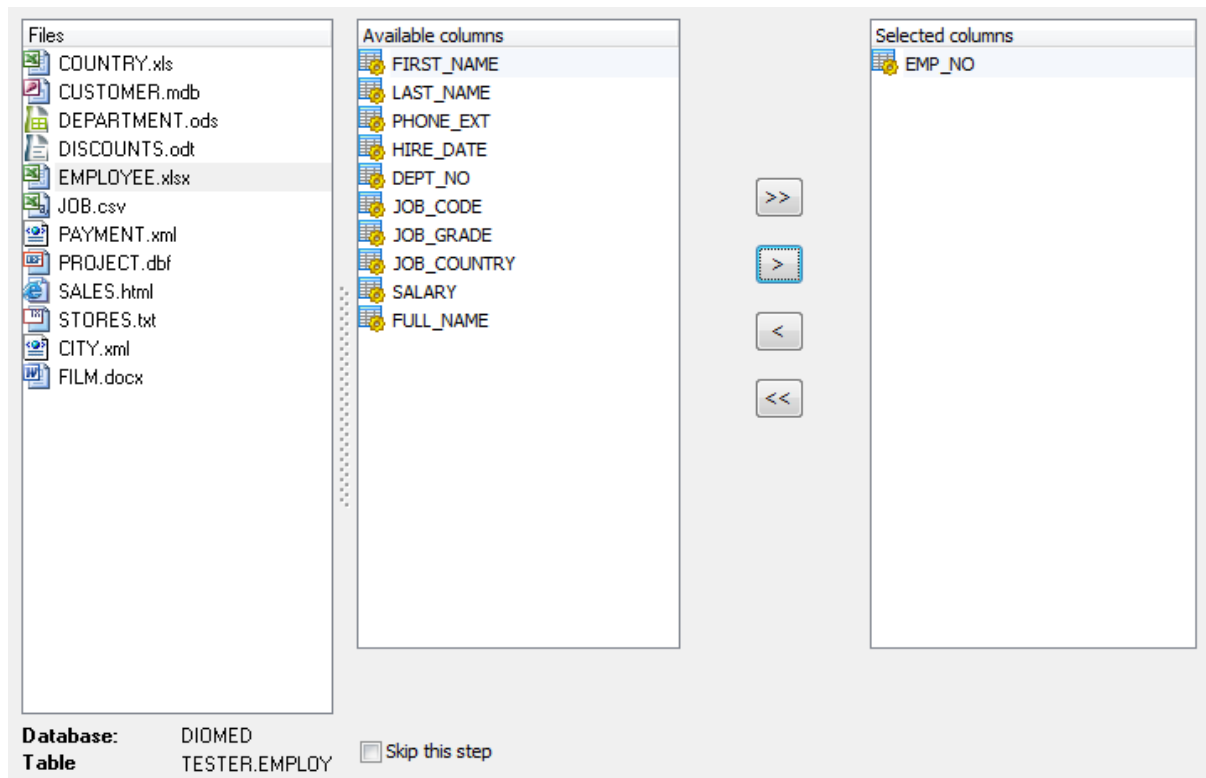
### 2.1.9 Step 8 - Selecting key columns

This step of the wizard allows you to select the fields of the table to be used as the **key fields** for the import process.

This step is not available if the ☒ *Insert all* option has been selected on the [previous step](#)<sup>[59]</sup>.

To select a field, you need to move it from the **Available Columns** list to the **Selected**

**Columns** list. Use the     buttons or drag-and-drop operations to move the fields from one list to another.



#### ☒ **Skip this step**

Check this option to skip the current step in the future. To edit the list of skipped steps, use the **Skipped Steps** group available in the [General](#)<sup>[69]</sup> section of the [Preferences](#)<sup>[69]</sup> dialog.

When you are done, press the **Next** button to proceed to the [next step](#)<sup>[62]</sup>.

### 2.1.10 Step 9 - Setting common options

Using this step of the wizard you can set **final import options**.

#### **Commit**

##### ☒ **Commit when done**

Check this option to commit the transaction after all records are imported.

##### **Commit after each ... records**

These control allows you to define the number of records in each block to be supplemented with the COMMIT statement.

##### ☒ **Rollback on error**

Check this option to rollback the transaction if an error occurred.

#### **Record Count**

☒ **Import all records**

Specifies that all records of the source file will be imported.

☒ **Import only ... record(s)**

Specifies the number of records to be imported.

☒ **Import empty rows**


If this option is checked then empty records are imported.

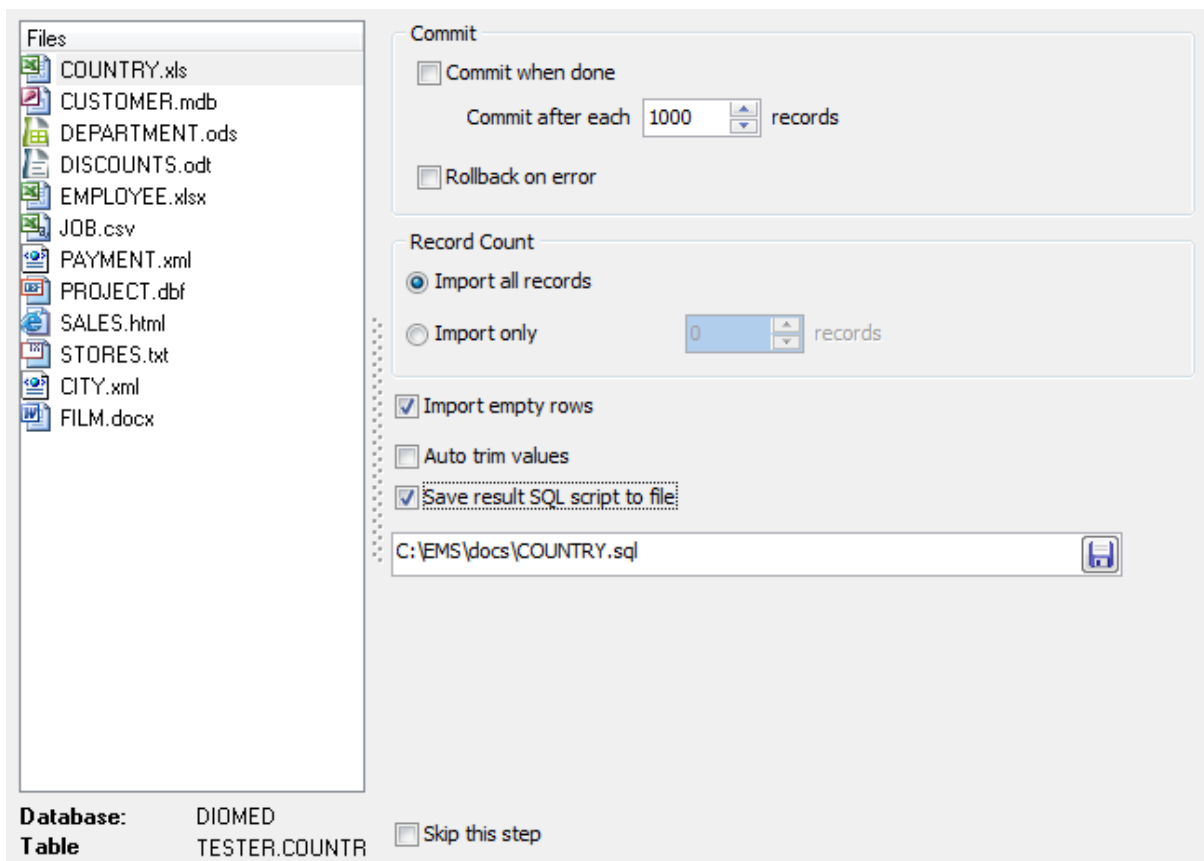
☒ **Auto trim values**

Check this function to remove all leading and trailing white-space characters from all imported records.

☒ **Save Result SQL Script to File**

This option allows you to save the result SQL script of the import operation to an external \*.sql file on your disk drive.

Specify the script file name and select its location using the  button which calls the **Save As...** dialog.



Files

- COUNTRY.xls
- CUSTOMER.mdb
- DEPARTMENT.ods
- DISCOUNTS.odt
- EMPLOYEE.xlsx
- JOB.csv
- PAYMENT.xml
- PROJECT.dbf
- SALES.html
- STORES.txt
- CITY.xml
- FILM.docx

Commit

☐ Commit when done

Commit after each 1000 records

☐ Rollback on error

Record Count


☒ Import all records

☐ Import only 0 records

☒ Import empty rows

☐ Auto trim values

☒ Save result SQL script to file

C:\EMS\docs\COUNTRY.sql 

Database: DIOMED

Table: TESTER.COUNTR

☐ Skip this step

☒ **Skip this step**

Check this option to skip the current step in the future. To edit the list of skipped steps, use the **Skipped Steps** group available in the [General](#)<sup>[69]</sup> section of the [Preferences](#)<sup>[69]</sup> dialog.

When you are done, press the **Next** button to proceed to the [next step](#)<sup>[64]</sup>.

### 2.1.11 Step 10 - Defining scripts

This step of the wizard allows you to define scripts to be **executed before and after import process** for each database.

Select a database to define the script for. Type the text of the script to be executed before the import operation in the **Before Import Script** area, the script to be executed after the import operation in the **After Import Script** area.

Select another database and add scripts for it, if necessary.

You can also save and load *Before Import* and *After Import* scripts using the corresponding **Save Script...** and **Load Script...** buttons.

The screenshot shows two stacked dialog boxes for defining scripts. The top dialog is titled 'Before import script' and contains a text area with the placeholder text: `/*Specify the script that will be executed BEFORE data import*/`. Below the text area are three buttons: 'Load script...', 'Save script...', and 'Clear'. The bottom dialog is titled 'After import script' and contains a text area with the placeholder text: `/*Specify the script that will be executed AFTER data import*/`. Below this text area are also three buttons: 'Load script...', 'Save script...', and 'Clear'. At the very bottom of the image, there is a checkbox labeled 'Skip this step'.

#### ☒ Skip this step

Check this option to skip the current step in the future. To edit the list of skipped steps, use the **Skipped Steps** group available in the [General](#)<sup>[69]</sup> section of the [Preferences](#)<sup>[69]</sup> dialog.

When you are done, press the **Next** button to proceed to the [last step](#)<sup>[65]</sup>.

### 2.1.12 Step 11 - Start of data import process

This step of the wizard is intended to inform you that all import options have been set, and you can start the import process. If everything is correct, press the **Import** button to start the process. If you want to change something, you can return to any of the wizard steps using the **Back** button.

☒ **Continue if [before import](#)<sup>[64]</sup> script is executed with errors**

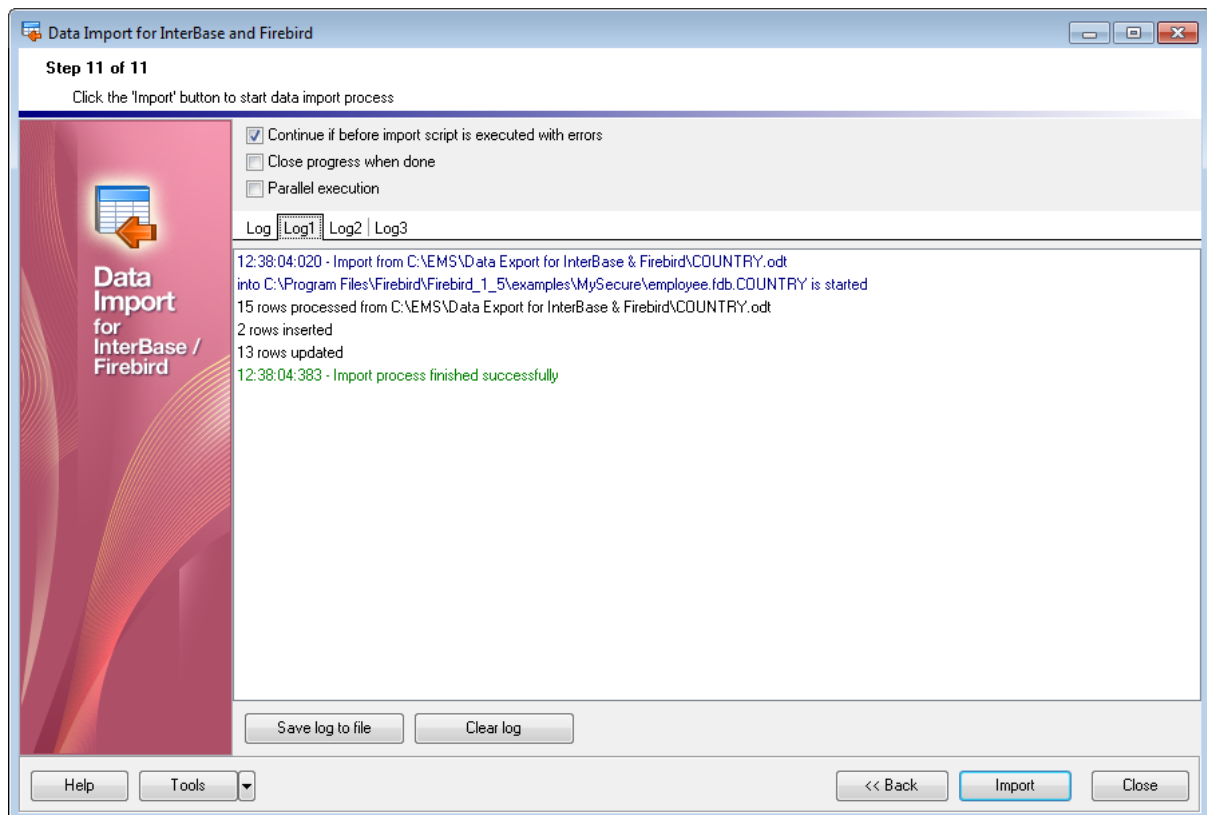
Check this option to ignore errors in *Before Script* execution during import.

☒ **Close progress when done**

If this option is selected, the child window indicating the import progress is closed automatically when the import process is completed.

☒ **Parallel execution**

Check this option to perform several files import process simultaneously.



#### Save log to file

This button calls the **Save file** dialog which allows you to save the on-screen log to a file.

#### Clear log

Pressing this button clears the on-screen log area, removing all messages.

If necessary, you can [save a template](#)<sup>[67]</sup> for future use.

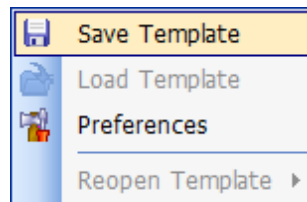
Click the **Finish** button to start the import process.

## 2.2 Using data import configuration files


Data Import for Interbase/Firebird allows you to store its configuration settings in external \*.itm template files if you need to perform the data import process repeatedly.

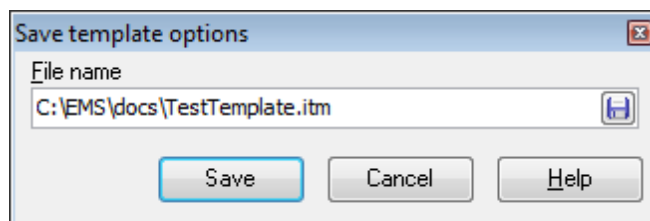
You can load previously saved configuration settings to the application [wizard](#)<sup>[23]</sup> if you need to make some changes before data comparison, or you can run it with the [console application](#)<sup>[77]</sup> for quicker data import.

Data Import templates are saved/loaded within the **Save template options/Load template** dialog. To open this dialog, press the **Tools** button and select the **Save template/Load template** popup menu item.



### File name

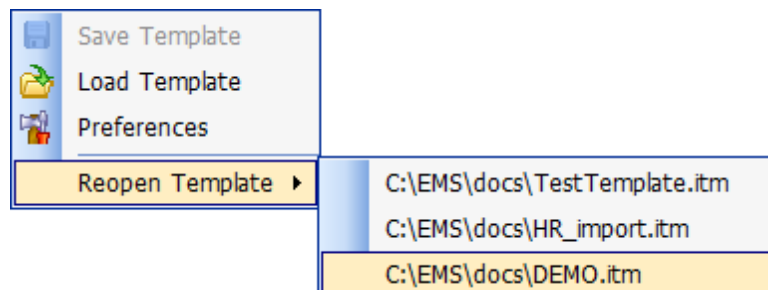
When saving template, specify the template file name and select its location using the  button which calls the **Save As...** dialog.



If you need to repeat data importing process with the same or similar settings later, it is reasonable to save all the settings you entered on the [Start of data import process](#)<sup>[65]</sup> step of the Wizard.

Please note that loading a template is only available at the [Getting started](#)<sup>[24]</sup> and the [Setting connection properties](#)<sup>[25]</sup> steps of the Wizard.

If necessary, you can **reopen a template** at any step of the wizard using the corresponding popup menu item of the **Tools** menu.



---

**See also:**

[Working with wizard application](#)  24

[Setting program preferences](#)  69

## 2.3 Setting program preferences

Data Import for Interbase/Firebird provides full customization of the program interface by setting various options within the **Preferences** dialog. This chapter is intended to inform you how to use all these options.

### [Setting general options](#)<sup>[69]</sup>

These options define general behavior of Data Import for Interbase/Firebird.

### [Selecting program language](#)<sup>[71]</sup>

This page allows you to select a language to be applied for your copy of Data Import for Interbase/Firebird.

### [Setting data font](#)<sup>[72]</sup>

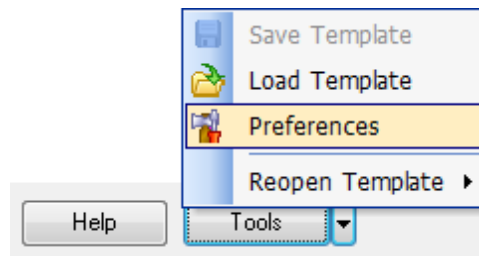
Allows you to adjust font settings for the data displayed in the application.

### [Setting Excel options](#)<sup>[73]</sup>

Allows you to adjust Excel data representation settings.

### [Defining interface style](#)<sup>[74]</sup>

This branch contains several pages with a number of options allowing you to customize the application interface style according to your liking.



---

#### See also:

[Working with wizard application](#)<sup>[24]</sup>

[Using data import configuration files](#)

<sup>[67]</sup>

### 2.3.1 General

#### General

##### ☒ **Confirmation on exit**

Enables/disables confirmation upon exiting the program.

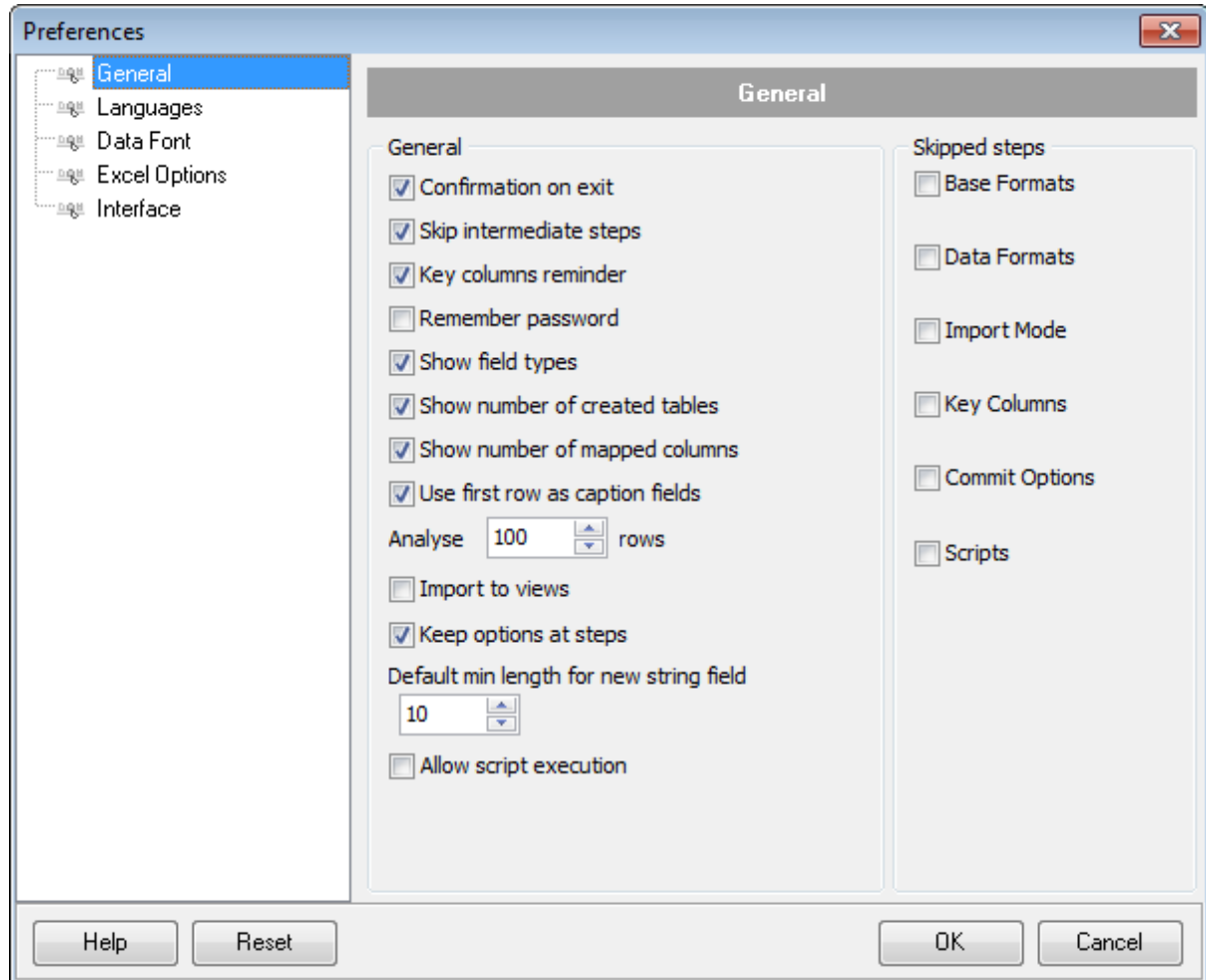
##### ☒ **Skip intermediate steps**

This option determines the behavior of the *Next* and *Back* buttons. When this option is disabled, clicking the *Next* button leads to sequential passing through the list of imported objects. When this option is enabled, the steps checked in the **Skipped steps** group will

be skipped.

☒ **Key columns reminder**

Use this option to enable/disable prompts to define key columns.



☒ **Remember password**

Setting this option allows you to save passwords used for access to the databases automatically upon closing the application. Please note that checking this option saves the latest password used for connection to the database (including the SSH server password).

☒ **Show field types**

Hides/displays field type description in the field list.

☒ **Show number of created tables**

Use this option to allow/disallow appearance of the correspondent information window.

☒ **Show number of mapped columns**

Displays the number of mapped fields on proceeding to [Step 3](#)<sup>31</sup>.

☒ **Use first row as caption fields**

Enable this option to use first rows as captions when mapping fields.

**Analyse *N* rows**

Define the amount of rows used for source data analysis before table creation. This analysis allows the program to define the destination table field type.

☒ **Import to Views**

By setting this option on you can import data to views - they will appear in the list of available tables at the [Step 2](#)<sup>[27]</sup> of [Wizard Application](#)<sup>[23]</sup>.

☒ **Keep options at steps**

If this option is checked all your import settings will remain the same the next time the program is started.

☒ **Allow script execution**

If this option is checked then the script entered on the [Step 5](#)<sup>[55]</sup> is always executed.

**Skipped Steps**

Use this option group to define the [Wizard application](#)<sup>[23]</sup> steps to be skipped.

---

**See also:**

[Selecting program language](#)

<sup>[71]</sup>

[Setting data font](#)<sup>[72]</sup>

[Setting Excel options](#)<sup>[73]</sup>

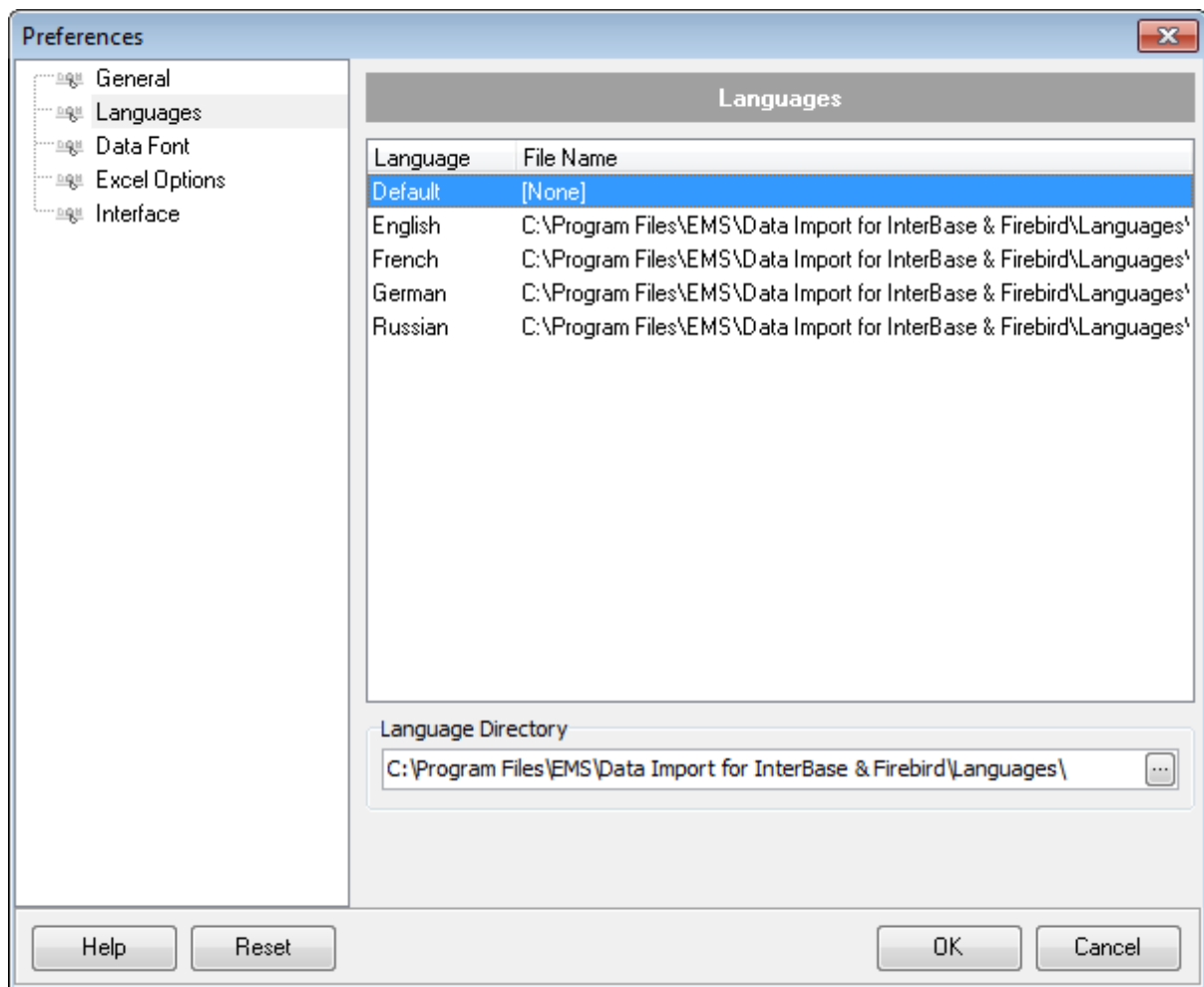
[Defining interface style](#)<sup>[74]</sup>

## 2.3.2 Languages


The **Languages** page is provided for managing Data Import localization files.

You can create your own \*.lng files similar to those available in the %program\_directory%\Languages folder, add them to the list of available languages and set the new language as the program interface language.

The table lists all the languages available for localization and the corresponding \*.lng files.



### Language Directory

Use the ellipsis  button to specify the directory where the \*.lng files are stored by default.

### See also:

[Setting general options](#) <sup>[69]</sup>

[Setting data font](#) <sup>[72]</sup>

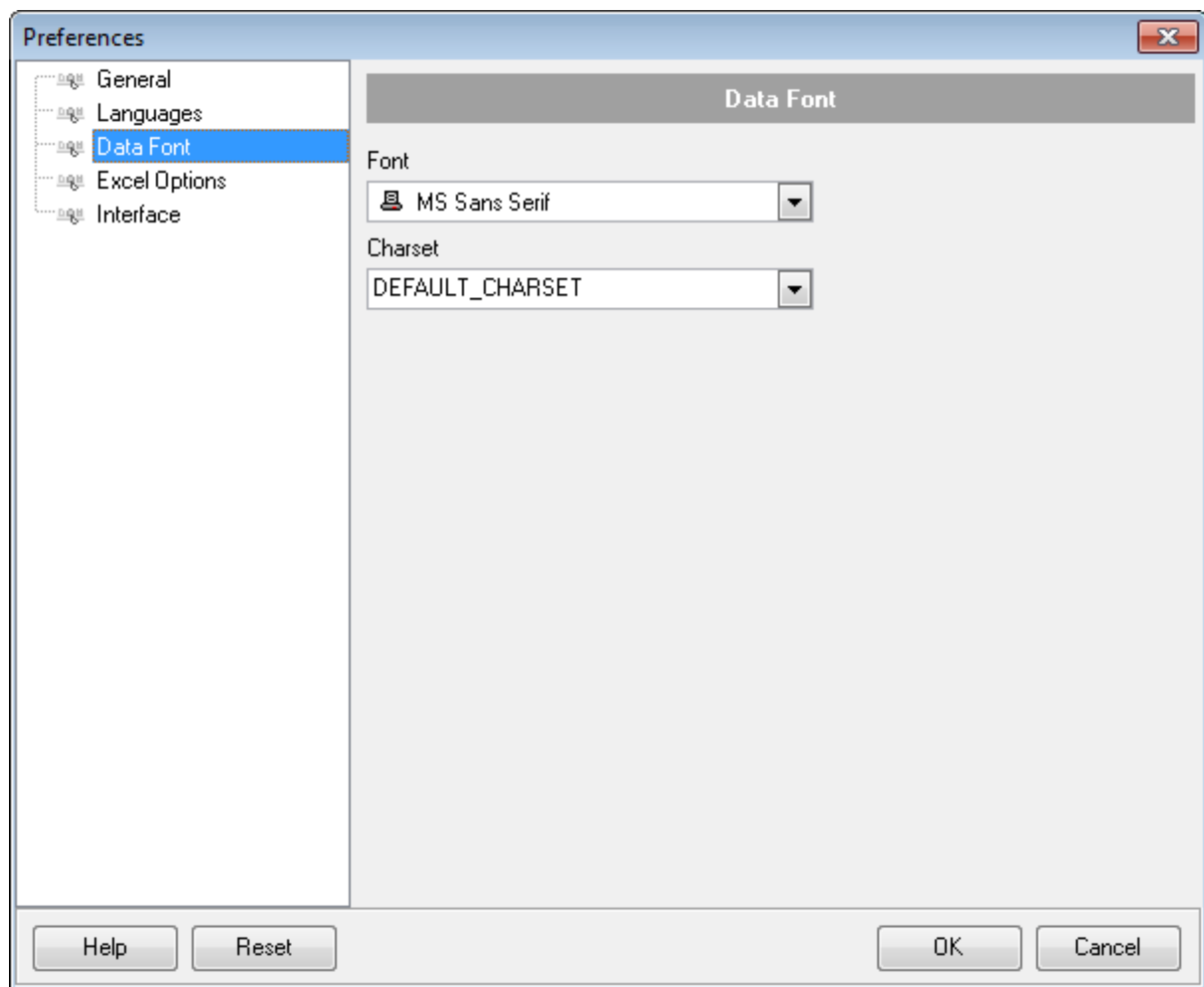
[Setting Excel options](#) <sup>[73]</sup>

[Defining interface style](#) <sup>[74]</sup>

## 2.3.3 Data Font

The **Data Fonts** page is provided for setting up the fonts for displaying data in Data Import for Interbase/Firebird.

Set the appropriate **font** and the preferable **charset** using the corresponding drop-down lists.



Note that neither font nor character set changes can be applied to [TXT](#) files.

---

**See also:**

[Setting general options](#)

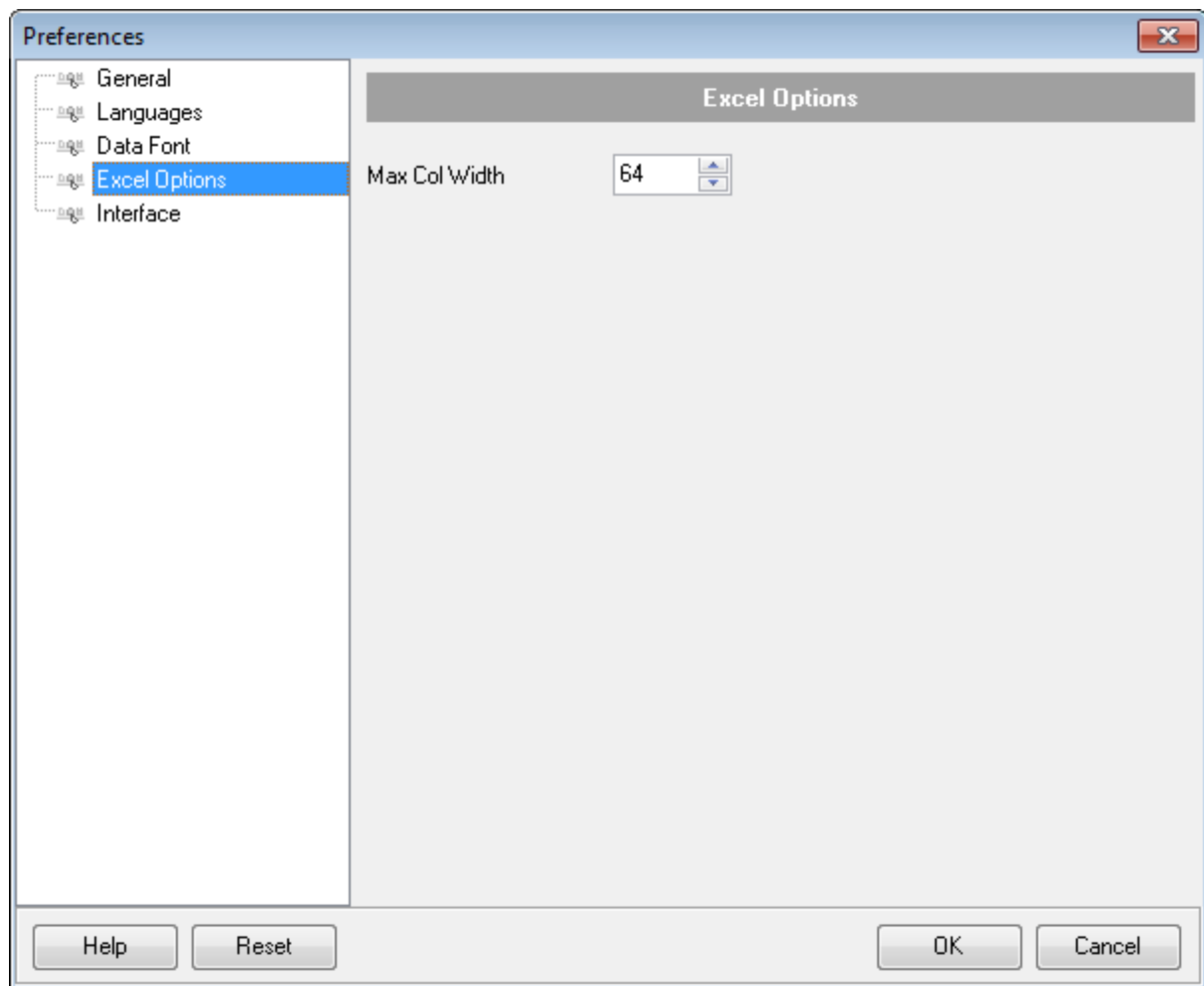
[Selecting program language](#)

[Setting Excel options](#)

[Defining interface style](#)

### 2.3.4 Excel Options

The **Excel Options** page allows you to set the **Max Col Width** parameter which defines the maximum column width for Excel data grid.



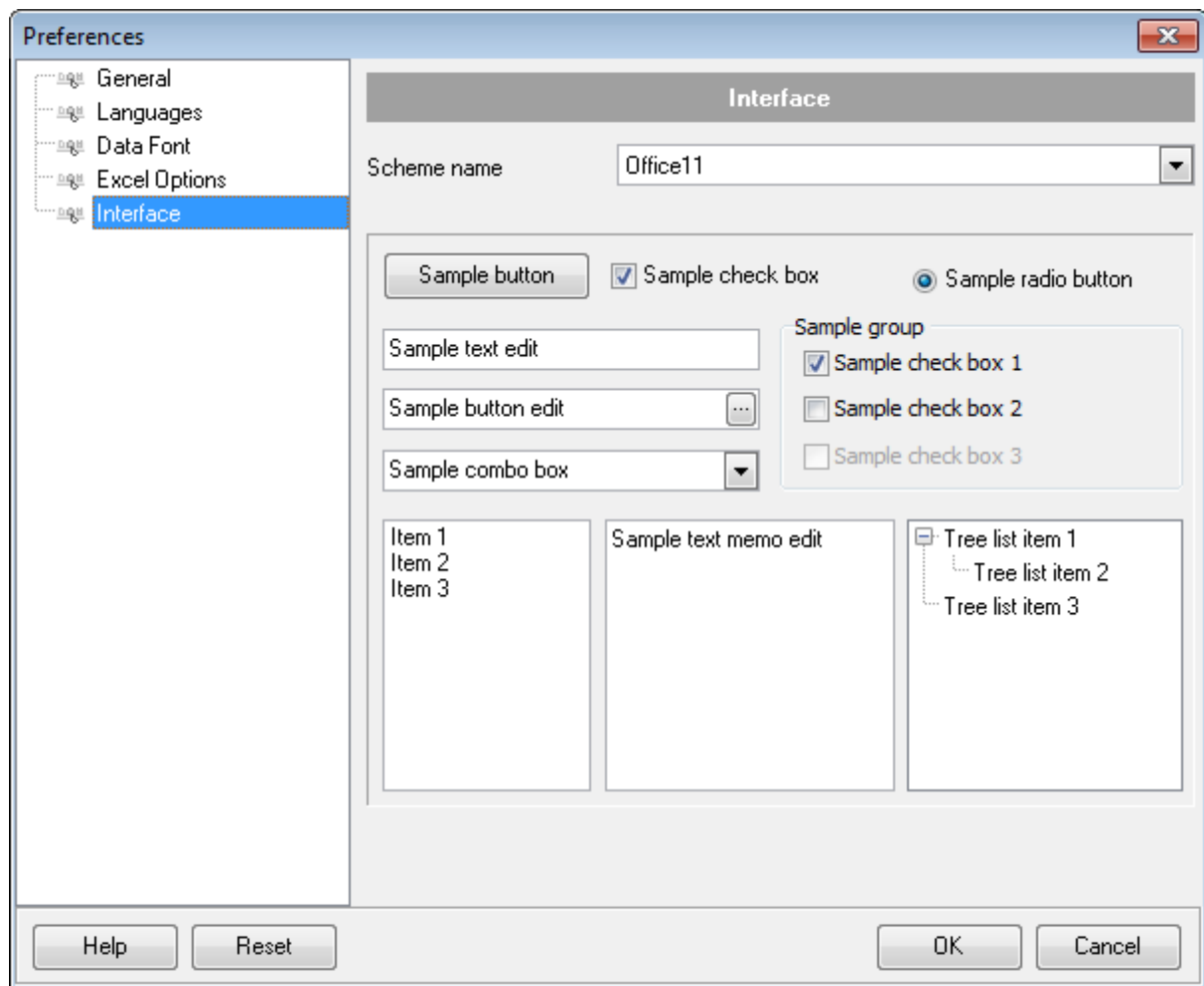
---

**See also:**[Setting general options](#)<sup>[69]</sup>[Selecting program language](#)<sup>[71]</sup>[Setting data font](#)<sup>[72]</sup>[Defining interface style](#)<sup>[74]</sup>

### 2.3.5 Interface

This page allows you to customize the application interface style to your liking.

Use the **Scheme name** drop-down list to select an interface scheme according to your liking: *Classic*, *Office XP style*, *Windows XP native style*, etc.



For your convenience the previews illustrating the changes are displayed in the **Sample Group** area.

**See also:**

[Setting general options](#)<sup>[69]</sup>

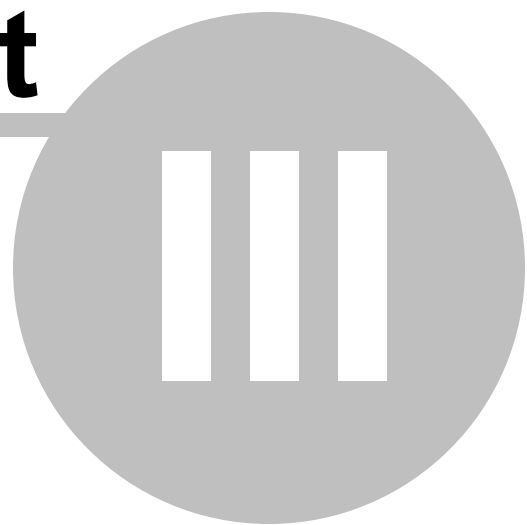
[Selecting program language](#)<sup>[71]</sup>

[Setting data font](#)<sup>[72]</sup>

[Setting Excel options](#)<sup>[73]</sup>

# Part

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### 3 Console application

Additionally to **the GUI version** which is implemented in the form of a wizard application, the installation package of Data Import for Interbase/Firebird includes **the console version** which is intended for being run from Windows command line with a template file name used as the execution parameter.

```
C:\Program Files\EMS\Data Import for InterBase>IbImportC.exe_
```

Data Import for Interbase/Firebird command line utility is intended for quick and powerful data import to Interbase/Firebird tables.

[Working with console application](#)<sup>[78]</sup>

[Configuration file format](#)<sup>[79]</sup>

---

#### See also:

[Wizard Application](#)<sup>[23]</sup>

## 3.1 Working with console application

All the import options are set in **template** (\*.itm) files. A template can be also used in the **Console version** of Data Import for Interbase/Firebird.

To create a template file, follow the instructions below:

- start Data Import [Application wizard](#)<sup>[23]</sup>;
- set all the required options in all steps of the wizard;
- test the import process at the last step;
- [save all import options in the template](#)<sup>[67]</sup>.

Console application also generates the \*.log file that contains information about the import operation completion.

The easiest way to start Data Import for Interbase/Firebird console application is to double-click the generated \*.itm template. The other way is to enter the command line and type the appropriate command.

### Usage:

```
<path to Data Import for Interbase/Firebird console application>\IbImportC.exe  
TemplateFile [-datafile=<source file name>] [-B]
```

### **datafile**

Indicates the source file for data import.

### **TemplateFile**

Stands for the \*.itm template file to be used as the console version execution parameter

### **[-B]**

Use this parameter in the command line to run the console version of Data Import for Interbase/Firebird in the background mode

### Example:

```
"C:\Program Files\EMS\Data Import for InterBase & Firebird\IbImportC.exe" "C:  
\EMS\DataImport\Template1.itm" -B
```

**Note:** The following exit codes can be returned by Data Import for Interbase/Firebird to the operating system after performing the latest task:

- 0 - successful completion;
- 1 - error(s) occurred during task performing;
- 2 - fatal error occurred. The task was not performed.

---

### **See also:**

[Working with wizard application](#)<sup>[24]</sup>

[Configuration file format](#)<sup>[79]</sup>

## 3.2 Configuration file format

The configuration file is divided into several sections.

### **[Connection]**

This section contains parameters for connecting to the server: *Host*, *Port*, *tunneling settings*, *Login*, *Password* (encrypted). These parameters are obligatory.

### **[PREFERENCES]**

This section contains the general settings of the utility.

*ImportToViews*

1 - enabled, 0 - disabled

The following sections are unique for each imported file and contain the appropriate postfix (*FILE\_00*, *FILE\_01*, *FILE\_02*, etc.)

In these sections the import options for each particular file are stored.

### **[FILE\_00]**

In the main file section the following parameters are used:

*Database* (destination database name), *Table* (destination table), *FileName* (the source file name)

*ImportType*

Indicates the format of the source file: 0 stands for MS Excel, 1 for MS Access, 2 - DBF, 3 - TXT, 4 - CSV, 5 - XML, 6 - MS Excel 2007, 7 - MS Word 2007, 8 - HTML, 9 - XML Document, 10 - ODS, 11 - ODT

The next section is specific to the file format and is named correspondingly, e.g. *[FILE\_00\_XLS]*. In this section the following specific file type options are set:

### **[FILE\_00\_XLS]**

*SkipRows*, *SkipCols* - the number of rows and columns in the source file to be skipped on import.

### **[FILE\_00\_Access]**

*SourceType*

This option indicates the Access source type - Table or query, 0 stands for table, and 1 for query.

*TableName* and *query* - these options set the source Access table name to import from if source type is 0 and the source query text if the source type is 1.

### **[FILE\_00\_TXT]**

*SkipRows* - the number of rows in the source file to be skipped on import.

### **[FILE\_00\_CSV]**

*SkipRows* - the number of rows in the source file to be skipped on import.

*CSVDelimiter*, *CSVRightQuot*, *CSVLeftQuot* - these options are used on reading the source CSV file, they store options for delimiting columns and the quotation marks.

The next section is **[FILE\_XX\_MAP]**.

It is also specific to the file type, but is obligatory for all file types. In this section correspondence between the source file columns and the destination table fields is set.

If the source file is an *Excel* file, then the map is set in the following format:

<DB\_FieldName>=CellIndex.

Use semicolon to separate multiple cells. You can define an Excel row or column as a range of cells, e.g.

Field1=A1;A4;A6-A9;B1-F1.

If the source file is an *Access* or *DBF* file, then the mapping is set in the following format:

<DB\_FieldName>=<Source\_Field\_Name>.

If the source file is a *TXT* file, the mapping looks in the following way:

<DB\_FieldName>=<Position>;<Size>.

This means that you should provide the starting position and the size of the source file column for each destination field.

To set mapping for a *CSV* file, provide a column number for each destination field, e.g.

Field1=1

Field2=4

etc.

The properties that are set in sections **[FILE\_XX\_BASE\_FORMATS]** and **[FILE\_XX\_IMPORT\_OPTIONS]** correspond to those set on the 'Base Formats' and the 'Options' tabs.

The values that stand for *BOOLEAN TRUE* and *BOOLEAN FALSE* values are set in sections **[FILE\_XX\_BOOLEAN\_TRUE]** and **[FILE\_XX\_BOOLEAN\_FALSE]**.

The *NULL* values are set in section **[FILE\_XX\_NULL\_VALUES]**

Data formats that are set for each destination field separately are stored in sections named in the following way:

**[FILE\_XX\_DATA\_FORMATS\_<FIELD\_NAME>],**

e.g. *FILE\_00\_DATA\_FORMATS\_FIELD1*.

The properties within these sections also correspond to the properties set on the 'Data Formats' tab of the [Settings data formats](#) <sup>[55]</sup> step for each field.

### **[FILE\_00\_IMPORT\_OPTIONS]**

This section contains parameters that define import options specified on Steps 6-9 of the wizard.

*CommitAfterDone*

1 - enabled, 0 - disabled

*CommitRecCount*

The number of records in each block to be supplemented with the COMMIT statement.

*ImportRecCount*

1 - enabled, 0 - disabled

*ImportAllRows*

1 - enabled, 0 - disabled

*SaveResultSQL*

1 - enabled, 0 - disabled

*ResultSQLFile*

The path to the result \*.sql file.

*ImportKind*

0 - Universal Mode, 1 - Native Mode

*TruncateLongString*

1 - enabled, 0 - disabled

*RollbackIfError*

1 - enabled, 0 - disabled

*ImportMode*

0 - Insert All, 1 - Insert New, 2 - Update, 3 - Update or Insert, 4 - Delete, 5 - Delete or Insert

*ImportAddType*

1 - enabled, 0 - disabled

*AllowDuplicates*

1 - enabled, 0 - disabled

*NativeModeKind*

0 - Single Commands, 1 - Batch insert

### **[#General#]**

This section stores information about the product name and its major version.

---

#### **See also:**

[Working with console application](#)<sup>[78]</sup>

**Part**

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**IV**

## 4 Appendix

### 4.1 Supported file formats

#### • **MS Excel**

The most popular e-table format used by Microsoft® Excel (\*.xls). The result files are fully compatible with Microsoft® Excel versions 97-2000, 2003 and XP.

#### • **MS Access**

File of Microsoft® Access format (\*.mdb) with an ADO connection used.

#### • **HTML**

Hyper Text Markup Language file format (\*.html, \*.htm), complete compatibility with HTML 4.0 specification.

#### • **Text file**

Plain text file format (\*.txt).

#### • **CSV file**

Comma-Separated Value file format (\*.csv).

**Note:** all the text formats including *Text file*, CSV are usually used as working or interchange formats.

#### • **XML**

A markup language for documents containing structured information (\*.xml).

#### • **DBF**

Database file format (\*.dbf) used by dBASE and a number of xBASE applications.

#### • **MS Excel 2007**

The contemporary e-table format used by Microsoft® Excel 2007 (\*.xlsx). The result files are fully compatible with Microsoft® Excel 2007.

#### • **MS Word 2007**

The contemporary text processing format used by Microsoft® Word 2007 (\*.docx). The result files are fully compatible with Microsoft® Word 2007.

#### • **ODF Spreadsheets**

OASIS Open Document Format for Office Applications - open document file format for spreadsheets (\*.ods) used by a number of applications including OpenOffice.org and KOffice.

#### • **ODF Text**

OASIS Open Document Format for Office Applications - open document file format for word processing (\*.odt) documents used by a number of applications including OpenOffice.org and KOffice.

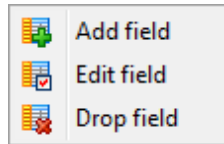
## 4.2 SSH tunneling options

SSH (Secure Shell Host) protocol is used to heighten computer security when working with Unix systems on the Internet. SSH uses several encryption algorithms of different reliability. The spread of SSH is also connected with the fact that a number of Linux-like OS's (for example FreeBSD) include SSH server in their standard integration. To learn more information on this issue, please, visit <http://openssh.org>. SSH tunneling feature of SQL Manager is a means of ensuring secure connection to Interbase/Firebird servers when working over insecure connection channels. You can also use SSH tunnel to get access to the remote Interbase/Firebird servers when the default port is closed for external connections due to some reasons. The connection over SSH tunnel works in the following way. First, a connection is established and the process of authentication between SSH client built in SQL Manager and remote Interbase/Firebird server is performed. Then all incoming and outgoing information between the program and Interbase/Firebird server is transmitted through SSH server with the help of a communication port (usually it is 22), and SSH server transfers this information directly to Interbase/Firebird server.

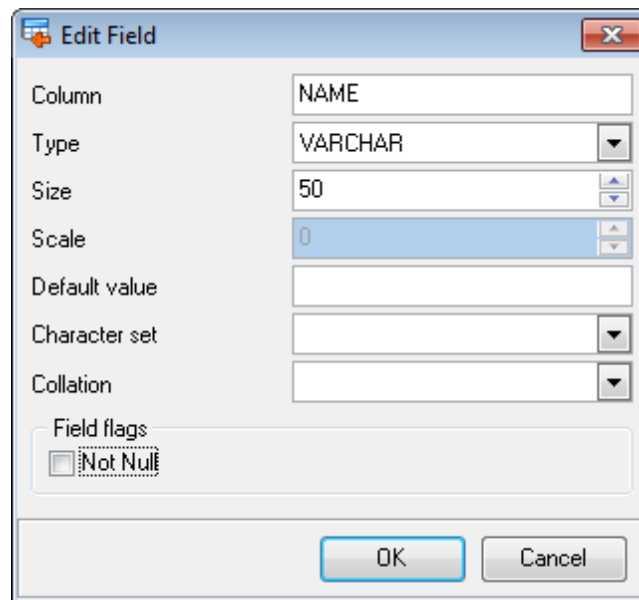
## 4.3 Add/Edit field

When you import data with destination table creation, you can manage this table's fields.

Use the context menu to Add/Edit/Drop a field.



Selecting **Add field** or **Edit field** context menu item opens the field editor that allows you to view/edit the properties of the destination table fields.

A dialog box titled 'Edit Field' with a close button (X) in the top right corner. It contains several input fields and a checkbox. The 'Column' field is set to 'NAME'. The 'Type' dropdown is set to 'VARCHAR'. The 'Size' field is set to '50'. The 'Scale' field is set to '0'. The 'Default value' field is empty. The 'Character set' dropdown is empty. The 'Collation' dropdown is empty. The 'Field flags' section has a checkbox labeled 'Not Null' which is currently unchecked. At the bottom are 'OK' and 'Cancel' buttons.

Use the **Column** edit box to set the field name. Note that the name of the field must be unique among all the field names in the table.

The **Type** tab defines the type of the field data.

### Size

Defines the size of the field value.

### Scale

For *numeric* and *decimal* types you need to define the number of decimal to the right of the decimal point.

### Default value

Define this option value if you need inserted records to get specified value.

Define *character set* and *collation* at the appropriate fields.

 **Not NULL**

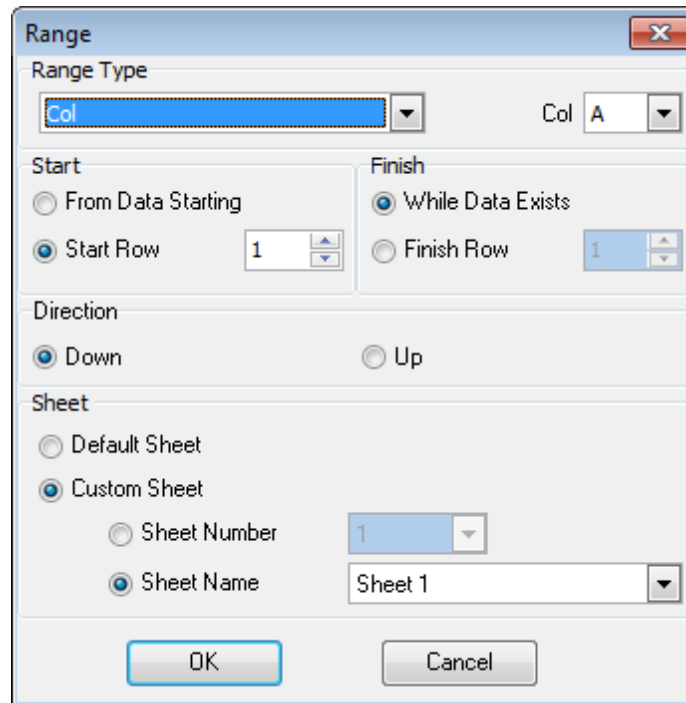
Check this option to prevent the entry of NULL or unknown values in column.

## 4.4 Add/Edit Range

To [set a range of data](#)<sup>[87]</sup> to be imported from the file, use the **Add range**  button.

To remove a range, use the **Delete range**  button.

To edit an existing range, double-click it in the **Ranges** list. The **Range** dialog allows you to set a number of options for the range being edited.



The **Range** dialog box is used to define the range of data to be imported. It contains the following sections:

- Range Type:** A dropdown menu currently set to **Col**. To the right is a **Col** dropdown menu set to **A**.
- Start:** Contains two radio buttons: **From Data Starting** (unselected) and **Start Row** (selected). Next to **Start Row** is a numeric input field set to **1**.
- Finish:** Contains two radio buttons: **While Data Exists** (selected) and **Finish Row** (unselected). Next to **Finish Row** is a numeric input field set to **1**.
- Direction:** Contains two radio buttons: **Down** (selected) and **Up** (unselected).
- Sheet:** Contains two radio buttons: **Default Sheet** (unselected) and **Custom Sheet** (selected).
  - Under **Custom Sheet**, there are two options: **Sheet Number** (unselected) with a numeric input field set to **1**, and **Sheet Name** (selected) with a text input field containing **Sheet 1**.

At the bottom of the dialog are **OK** and **Cancel** buttons.

Select **Range Type** from the corresponding drop-down list. Then specify the *column*, *row* or *cell* number whose range is to be defined.

**Start** and **Finish** section allows you to set the range of the values to be imported from the specified row or column.

Use the ☒ **From Data Starting** and ☒ **While Data Exist** options to automatically define the range of the values.

If neither start row/column nor finish row/column was specified you need to set range direction: ☒ **Down** or ☒ **Up** for column range and ☒ **Right** or ☒ **Left** for row range.

Use **Sheet** section to define the location of the row/column for which the row was specified.

You can select either ☒ **Default sheet**, or ☒ **Custom Sheet**.

For custom sheet you need to select **Sheet Number** or **Sheet Name** from the appropriate drop-down list.

**Note:** If Cell was set as Range Type, the only thing you can specify at this dialog is its number.

# Credits

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